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Illustrator 10

FIRST LOOK! We unveil all the hot new tools in Adobe's leading vector graphics application

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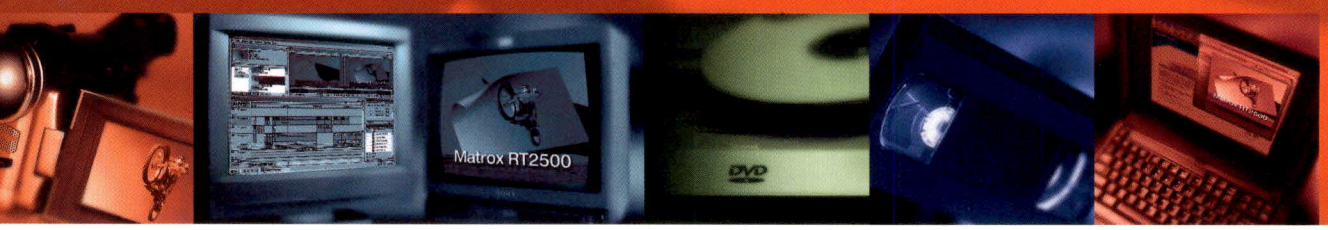

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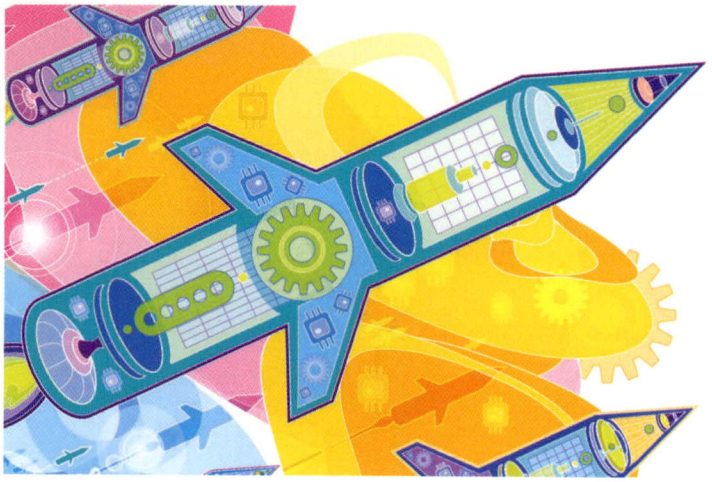

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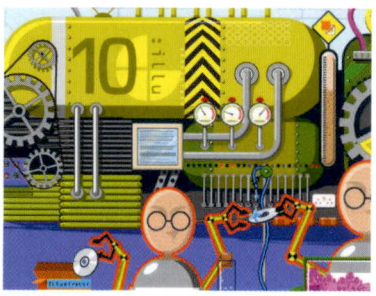

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Adobe Illustrator 10

The last year has certainly been a topsy-turvy one for many designers. We've seen steps forward with the arrival of Apple's OS X, for instance, but a general cooling of opinions towards the Web and online design. In many ways, Adobe's *Illustrator 10* reflects these shifting attitudes within the creative industry.

Designers who work on the cutting edge of technology have been bemoaning the fact that so few professional design applications are native on OS X. However, we feel Adobe has done a wise thing in taking its time to get it right. *Illustrator 10* is the first Adobe application to be totally Carbonised, and it's also the first to be available on the Windows XP platform – a double-whammy of platform progression.

More promising in our view, Adobe hasn't been pulled so far in the Web or online direction that it has lost touch with the interests and requirements of print designers. While *Illustrator 10* contains a very solid set of new features for screen-viewed design work, the print creative will also find plenty of improvements and new tools in this upcoming release. And, of course, much of what's in it is applicable to designers working across various media. It's all part of Adobe's network publishing strategy, which is to cater for designers whether their creative output is for the Web, for handheld devices, for print or for platforms yet to be devised.

Throughout this 36-page supplement we look at all aspects of the release, providing you with the ultimate guide to *AI10*.

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This supplement has been included with issue 63 of *Computer Arts* and issue 18 of *Cre@te Online*. Tutorial files are available on the CDs accompanying these magazines.

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Illustrator 10: beta tested

The latest release promises big things, but how does the beta measure up?

Price

$399

Company

Adobe

Telephone

020 8606 4001

Website

www.adobe.co.uk

Features

- Huge Web and print-orientated vector toolset
- Symbols
- Slicing
- Enhanced *Flash* support
- Dynamic data-driven graphics
- SVG import and export
- Live distortion effects
- New Arc, Grid and Polar Grid drawing tools
- Enhanced Pathfinder
- Tighter integration with other Adobe products
- New Magic Wand/Selection tools
- Native OS X support

System

PC: Pentium II+ • 128MB RAM • 180MB HD • Win 98/2000/ME/NT 4

Mac: Power Mac G3 • 128MB RAM • 180MB HD • OS 9.1, 9.2 or 10.1

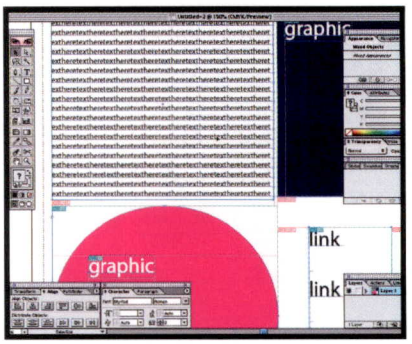
PC Mac

Availability

Illustrator 10 is expected to ship at the end of this year for £347 (upgrade £129). For more details, keep an eye on [w] www.adobe.co.uk.

Adobe *Illustrator* has always been predominantly a print tool. Over the last few years, though, the application has taken on a variety of Web features. This shift began in version 9, bringing, amongst other things, a *Photoshop*-esque Save For Web dialog, Web-safe colour palette and SWF export. The challenge for Adobe in version 10 was to produce an application that excelled in enabling the artist to produce print-quality artwork while adding tools for the online-inclined creative.

Nowadays, it is taken for granted that an application will include Web export functionality — without this a package seems somewhat limited. *Illustrator 10* has gone for the jugular, bringing in a plethora of Web-orientated tools and general enhancements.



If you resize the image or object the slices are automatically adjusted.

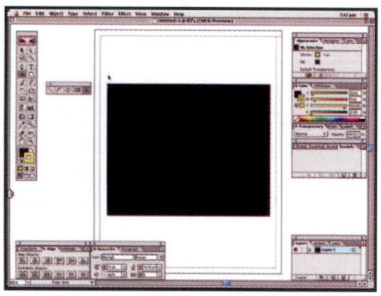
Web enhancements

There's no doubting that rival packages influence each other in various ways. A good example of *Illustrator* influencing the competition was the introduction of the Interactive Mesh Fill tool in *CorelDRAW 9* — certainly a take on *Illustrator*'s Gradient Mesh tool. This time, however, *Illustrator* has drawn influence from its major rival, *FreeHand*, bringing symbols into the application. These work exactly as you'd think — when you create a logo or element you wish to reuse, you can

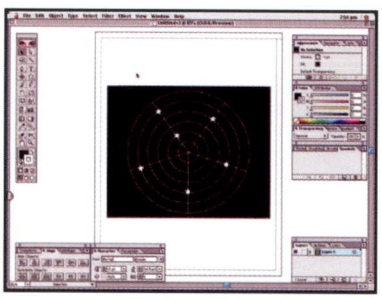
Illustrator 10 has gone for the jugular, bringing in a plethora of Web-orientated tools and general enhancements

The *Illustrator* interface hasn't changed that much, remaining clean and as navigable as ever. A few new elements, such as the Variables and Symbols palettes are here, along with new tools that have been added to the main Tool box. Overall though, it looks like Adobe has concentrated on making the leap to version 10 as painless for users as possible.

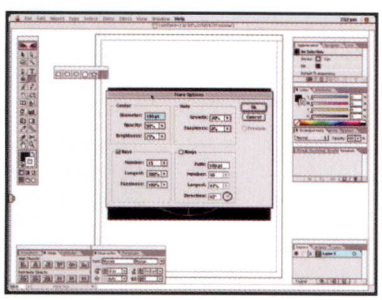
The Flare tool



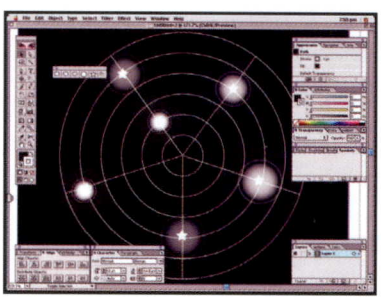
1 First create a new document. Next, using the Square tool, create a large box and fill it with 100 per cent black. Now find your way to the Polar Grid tool (found in the Line tool flyout).



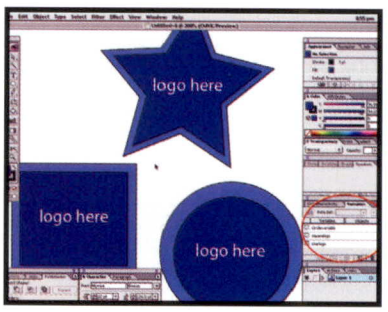
2 Change the stroke colour to a light yellow and the fill colour to none. Now drag using the Polar Grid tool over the top of your black box. If you wish, add a few stars on some of the dividers for effect.



3 Choose the Flare tool from the same flyout. Double-click and a dialog appears. Next, turn off Rings and boost the brightness up to 75 per cent. Click and drag over the stars you've just drawn, varying the sizes of the lens flares.



4 Finally, select the flares and vary the opacity of each, blending them into the stars. Lens flares can also be extremely effective when adding things like highlights to graphics that are normally flat and lifeless.



Illustrator 10 brings dynamic data-driven graphics to the app with the new Variables palette, enabling you to define various elements of your artwork as variables which can be linked to fields in a database.

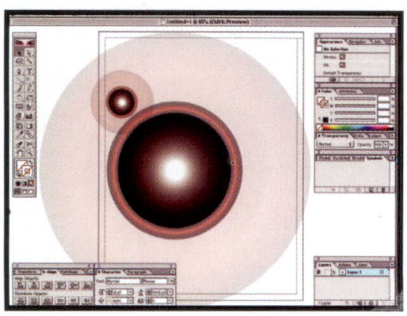
convert it into a symbol using the new Symbol palette (Window>Show Symbols), then dot instances of it around the page using the Symbol Sprayer tool. Using the Redefine Symbols command from the Symbol palette flyout, you can automatically update all instances. Any *Illustrator* element can be saved as a symbol and reused accordingly, which is extremely handy.

The Symbol Sprayer tool, though, is only a small part of *Illustrator*'s symbol toolset. Within the toolbox you'll find seven further tools for manipulating symbols (ingeniously labelled the 'Symbolism' tools). These include the Symbol Shifter, Symbol Scruncher, Symbol Stainer and Symbol Styler. The latter is by far the most interesting, enabling you to apply a predefined or custom style to a symbol. By combining styles and symbols, Adobe has opened the door to endless possibilities of graphic creation for the Web — for example, enabling the production of graphics consistent in form yet differing in stroke, and fill objects that stay low in file size (thanks to instances rather than actual objects being used). In addition, *Illustrator* supports symbol libraries. This means that Web design teams can collaborate efficiently, passing on ideas for designs with the minimum of fuss. This is certainly a useful feature, but one we've seen before in other applications.

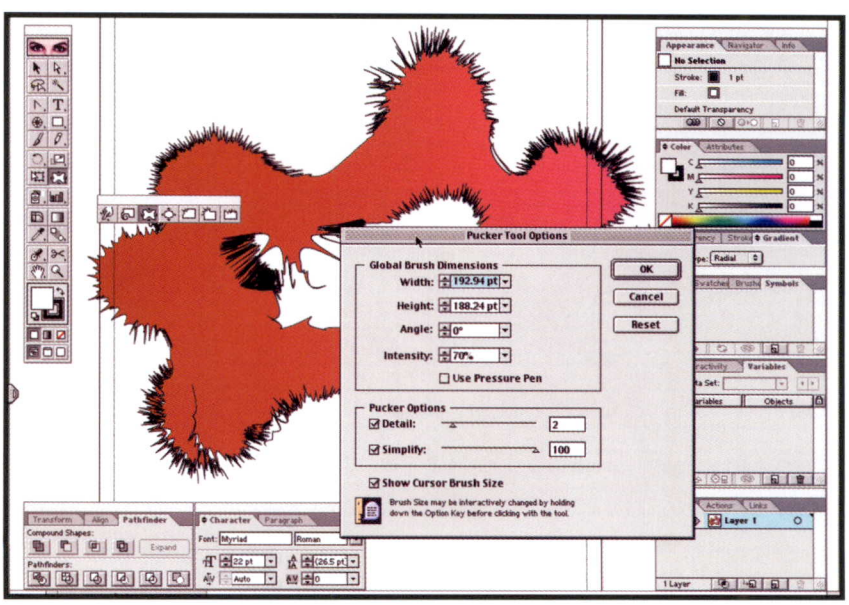
When exporting to SWF, all symbols are automatically converted into *Flash* symbols — a smart move by Adobe which ensures that *FreeHand* is not the only application that's compatible with *Flash*'s symbol library.

Illustrator 10 continues to build on SVG technology. This format, which has just been approved by the W3 consortium, enables you to create graphics that are crisp at every size, and add JavaScript code to separate design elements. Live SVG effects are the main addition in version 10, enabling the easy creation of dropshadows, Gaussian blurs and other customisable effects. The real boon of this feature, though, becomes apparent when using it in conjunction with *Illustrator*'s new dynamic data-driven graphics feature.

When you start to look at *Illustrator 10*'s new options for dynamic graphics, you soon realise



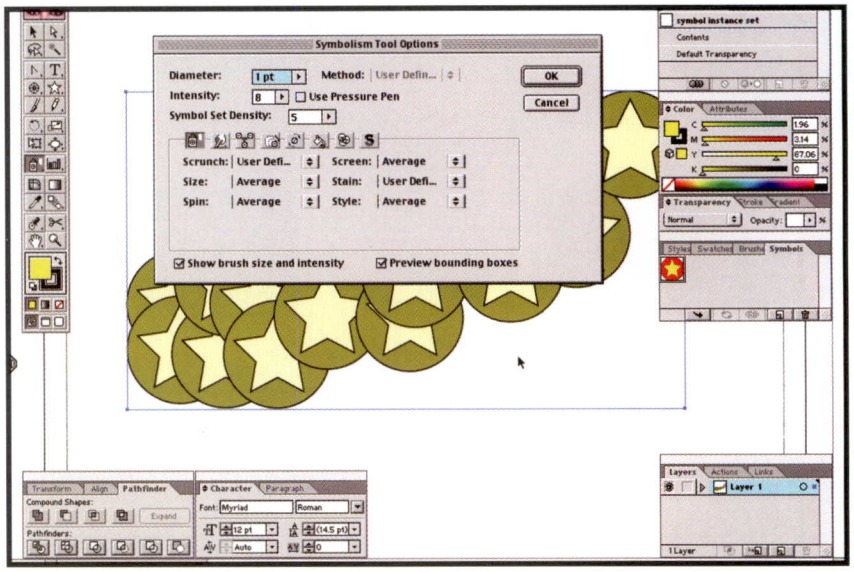
The new Flare tool aims to add realistic lens flares to *Illustrator*'s creative feature-set. Easy to use and capable of some great results, it's a welcome addition.



The new live distort tools seem to take their inspiration from a well-known *Illustrator* plug-in, and are great for adding a variety of warp-like effects to your artwork. Each tool has a dialog with its own comprehensive settings.

that Adobe is pushing the application as much more than simply a vector graphics creation tool. Basically, it's now possible in *Illustrator 10* to separate the design and the content of your artwork. Tools that enable you to link graphics templates to ODBC-compliant data sources make it possible to automatically update online graphics. The new Variables palette enables you to define particular elements of your artwork as variables, which can be linked to fields in a database. It's then a matter of writing scripts to replace the variables with data from any ODBC-compliant database. Alternatively, you can integrate *Illustrator* templates into workflows based on dynamic image servers – such as Adobe's new *AlterCast*.

New Slicing tools enable you to slice up your artwork either manually or by objects directly on the *Illustrator* page, and support for CSS layers means that the creation of an entire site in *Illustrator* is now a viable possibility. The Save For Web dialog has received a few enhancements, with slice-specific format and compression options enabling you to optimise each slice independently of the rest, depending on the content.



Symbols, as within 'the other' illustration package, make it a breeze to reproduce often-used graphics on your *Illustrator* page. Because instances are used, file sizes are kept to a minimum.

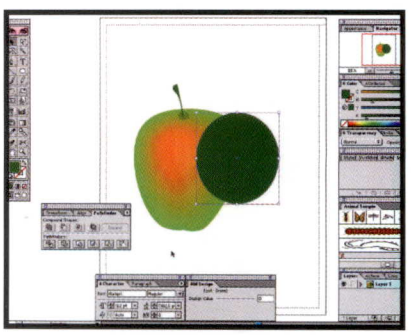
Creative boost

With *AI10*, Adobe has made it perfectly clear that the Web is the medium towards which *Illustrator* is moving, but to keep the established user-base of professional print illustrators happy, the company has naturally included a healthy selection of new creative-driven tools. The first of these is an impressive set of live distortion effects.

By finding your way to Effect>Warp, you open up the first of the live distortion dialogs. The Warp dialog contains various settings for (yes, you've guessed it) warping your selected objects or text. Included are Arc, Arc Lower, Arc Upper, Arch, Bulge, Shell Lower, Shell Upper, Flag, Wave, Fish, Rise, Fisheye, Inflate, Squeeze and Twist. All warp in exactly the way you'd imagine, and all come with sliders enabling you to adjust parameters. As you do this, a handy preview enables you to see the results interactively before you commit to the final warp.

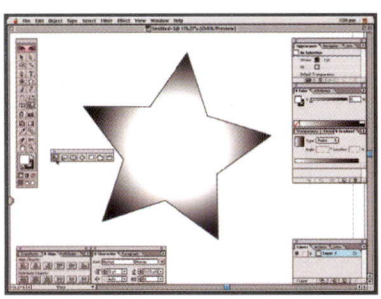
As in *FreeHand*, *Illustrator* now comes complete with envelope distortion tools. Any path that you draw can become the basis for a new distortion. This is a simple enough process that's also extremely powerful – even more so when you realise that you can edit the envelope path at any point, thus editing the distortion. A useful Envelope Mesh tool is also available in version 10, which enables you to manipulate points on a mesh in order to distort an underlying object.

Liquify tools are the next new addition to the distortion features. It seems as though Adobe has taken a big leaf out of plug-in developer CValley's book and produced a built-in set of tools similar to those found in *FILTERiT 4*. The tools, found in the Tool palette, enable you to interactively bloat, roughen and twirl your objects, and the list

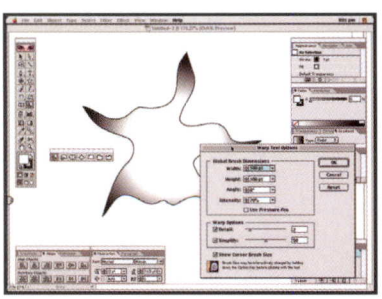


The enhanced Pathfinder tool brings many more options when creating compound shapes.

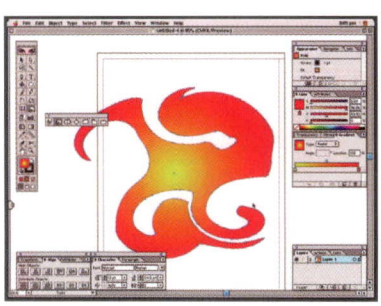
The Liquify tools



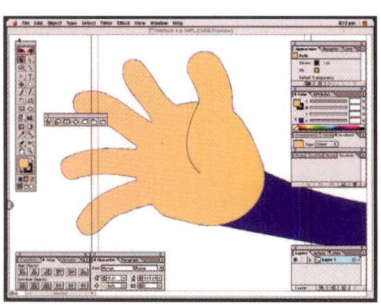
1 First create a shape – it doesn't matter what, but we've chosen a star as it emphasises the tools. Fill your shape with a colour, then find your way to the Warp tool in the mini tool palette.



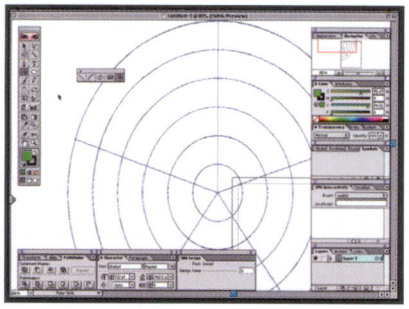
2 Double-click the tool – a dialog appears in which you can modify the settings of the selected tool. Change the intensity to around 70 per cent, then click and drag on your object.



3 Now draw a circle and fill it with any colour. Next, find the Twirl tool. Before clicking and dragging on the edges of the circle, hold down the Option key (Mac) or the Alt key (PC). Now you'll find that you can interactively change the brush size and width.



4 Finally, we'll take a look at the Bloat tool by creating a cartoon hand. Draw another circle and fill it with a colour. Next, select the Bloat tool and drag out four sausage shapes from the edge of the shape. Hold down Option or Alt and make the brush a little wider, then pull out a fifth 'sausage'.



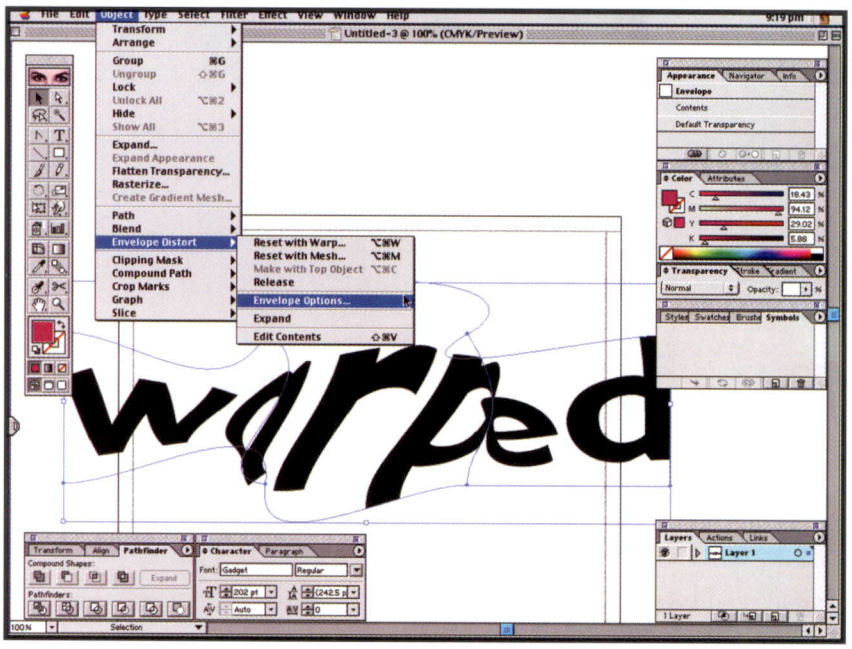
The Polar Grid tool is just one of three new drawing tools added to version 10. It won't be the most used tool in the box, but it's a neat addition anyway.

consists of Warp, Twirl, Pucker, Bloat, Scallop, Crystallize and Wrinkle.

Terrific toolbox

As we've mentioned, *Illustrator* has always been recognised as one of the best tools for print work, largely due to its excellent set of drawing tools. Pro illustrators will be delighted to find that a few new drawing tools have been added to the app, as well as some enhancements to the Pathfinder and a new Flare tool.

Adobe has added Arc, Grid and Polar Grid tools to version 10 – all are pretty basic in function, but they do the job they're supposed to well. The Grid and Polar Grid tools are intuitive to use, with the user determining dividers by keyboard shortcuts.

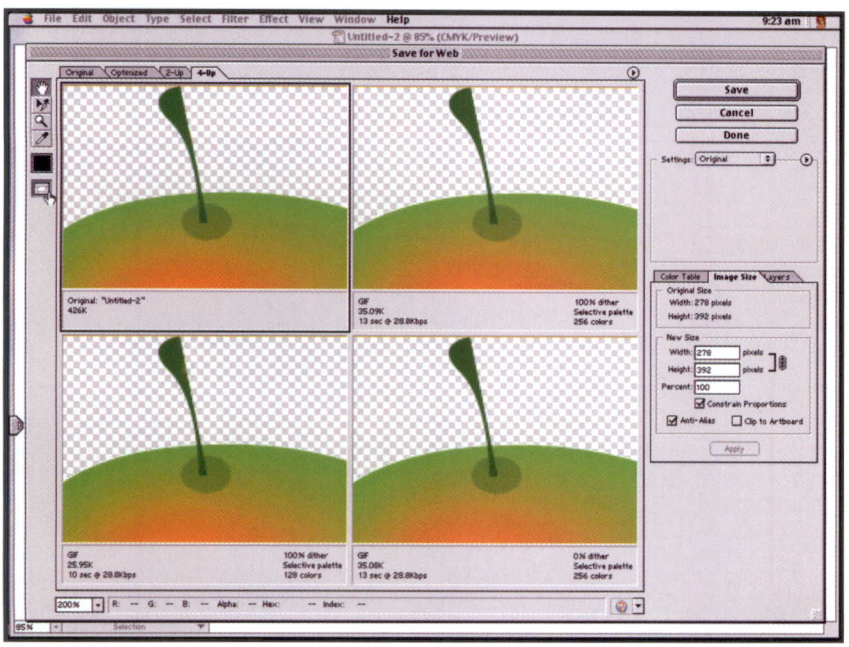


Envelopes can be used to interactively warp text or objects by manipulating a mesh or path. Any path you draw can become the basis for a new distortion. This path can then be edited if necessary – thus changing the distortion.

Building on the already excellent Pathfinder palette, Adobe has introduced a more streamlined approach to creating complex compound shapes. Compound shapes are now live and therefore easier to edit, with the new Add, Subtract, Intersect and Exclude buttons enabling you to maintain the editability of the separate shapes that make up the compound object – until you hit Expand to flatten it.

Until now, lens flares have been very much a bitmap-based artform. We say until now, because Adobe has made the assumption that illustrators need to create lens flares within vector-based work. However, the new Flare tool is pretty spectacular. It works amazingly well, with a host of tweakable parameters – such as Halo, Ray and Rings settings – making it easy to add say, lighting effects to a graphic. Because the flares are vector objects, they can be easily animated within *After Effects* or *Premiere*.

A few new drawing tools have been added to the app, as well as some enhancements to the Pathfinder



Illustrator 10's Save For Web dialog. Not that much has changed, apart from the fact that you can now optimise and compress slices independently of the rest, obviously depending on content.

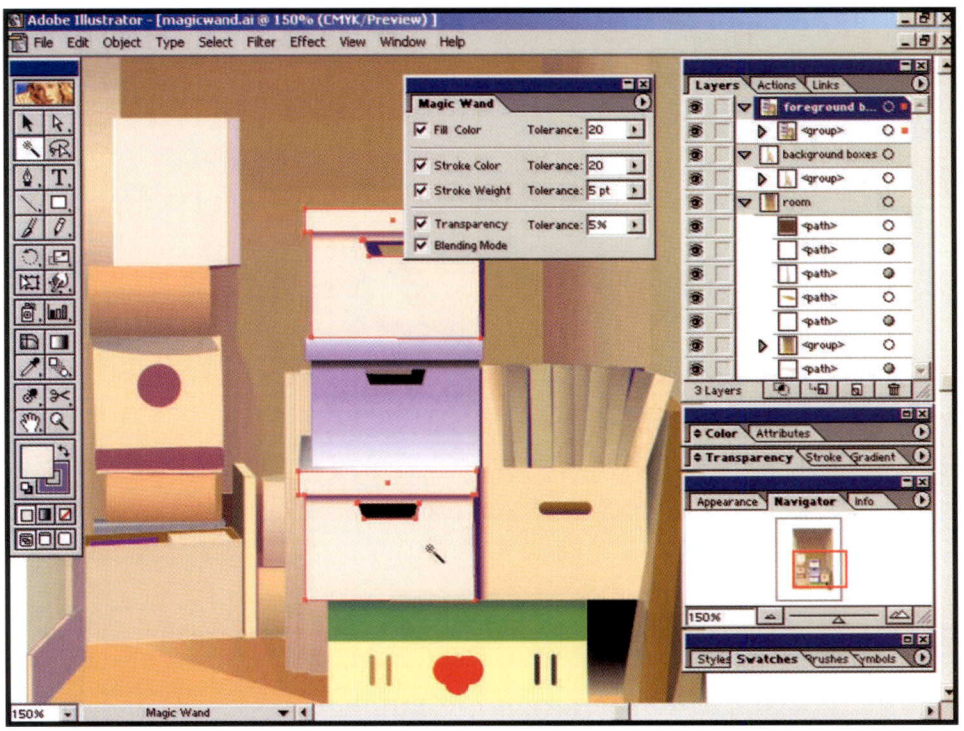
Further enhancements

Other improvements to the application include tighter integration with *Photoshop*, the forthcoming *InDesign 2.0* (native *Illustrator* files retain transparency and live effects, and can be edited directly within *InDesign*), *GoLive*, *LiveMotion* and *AlterCast* – Adobe's new image server software.

A Magic Wand tool has been added, enabling you to easily select different objects with similar attributes, and a new Selection menu (à la *Photoshop*) enables you to quickly save and load selections. Finally, the Flattener Preview enables you to preview how artwork using transparency will print, whereas the Rasterise live effect enables you to precisely control the anti-aliasing of text.

Along with everything else that Adobe has introduced, these make *Illustrator 10*, on first glance, look like a formidable application. The combination of a truly thorough Web feature set, some nifty new drawing tools, and *Illustrator*'s already comprehensive print-based design ensemble make for what could be the next generation of vector graphics applications. Look out for the *Computer Arts* review soon. ca

The Illustrator 10 interface



Adobe has resisted the temptation to introduce a tool options bar across the top like the one in *Photoshop 6*, instead relying upon shrinkable floating palettes and keeping the basic screen layout clear.

The menus

Despite *Illustrator*'s palette-based interface, the main menus are where you'll find all the essential program commands...

Edit menu

The commands at the top of the Edit menu are familiar: Undo, Copy, Cut, Paste, and Paste In Front/Behind. The Edit Original command is here too, letting you launch a bitmap paint app to edit an image you've placed in your artwork, then save it back. A Define Pattern command names and sends selected objects to the Swatches palette. Below these are colour management settings, keyboard shortcuts and program preferences.

Effect menu

This looks like an action replay of the Filter menu, but these effects concentrate more on vector graphics than placed bitmaps. It's full of Scribble, Tweak and Warp effects, and Pathfinder commands for combining objects. A number of bitmap-style effects are included which can be applied to vectors but leave them editable, and you can apply SVG filters from here, too.

File menu

As well as the usual commands you'd expect (New, Open, Close, Save/Save As, Place, and Export), v10's File menu can open up a Save For Web multi-pane optimisation dialog. Here too you can access workflow servers directly and run scripts. It's also the place for document and separation setup, typing in metadata for database retrieval, and for printing, as well as quitting (Mac) or exiting (PC).

Filter menu

No prizes for guessing what's in here. Half the menu is made up from special visual, colour and distortion effects for vector objects. The other half enables you to apply *Photoshop*-compatible plug-in filter effects, with over 50 being provided with the package as standard. Unless you have a bitmap image selected in your artwork, though, these bitmap filters remain greyed out.

Help menu

As well as calling up the HTML-based Help documents, this menu includes bookmarks to relevant *Illustrator* support pages at Adobe's US Website.

Object menu

Now things get serious, with the Object menu providing access to a long list of object transformation and editing functions. All the principal path, blend and envelope features can be triggered from here without using the Tools palette, and Graph and Slice actions are included too. Crop marks can be applied and a Gradient Mesh created. Objects can be grouped, locked and hidden, and overlapping items brought forward and sent backwards in the stack as desired.

Select menu

This is a pretty small menu, and brand new to *Illustrator 10*, but a sneakily clever one just the same. Working alongside the newly beefed-up Magic Wand tool, the Select menu includes such nifty selection commands as All Text, Brush Strokes, Same Colour, and so on. You can select objects just above or below those you have already selected even if you can't see them, and you can save multiple selections as named sets.

Type menu

Although hardly a replacement for the Character and Paragraph palettes, the Type menu includes special features of its own which can't be wielded elsewhere. Create Outlines converts text to vector objects, you can run the spellchecker from here, and there's a handy pair of Find Font and Find/Change commands. You can set type boxes with multiple rows and columns, change font orientation, and update the selection's Smart Punctuation (ligatures, curly quotes, and so on) options.

View menu

The longest menu in the program, View provides ways of showing and hiding outlines, guides, rulers, bounding boxes, slices, transparency grids, overprint and pixel previews, and zoom controls. Ink overprint, proof and pixel (rasterised effect) preview modes can be toggled on and off, and the zoom level switched between common presets such as Actual Size and Fit In Window.

Window menu

The Window menu works similarly to the Window menu of many other applications. It's a long list of all *Illustrator*'s floating palettes. Selecting any of the names shows or hides that palette — or its whole tabbed group — on the main work area. Here too you can jump between open documents by name and create multiple views of a single document. Also provided is quick access to Brush, Style, Swatch and Symbol libraries.

The palettes

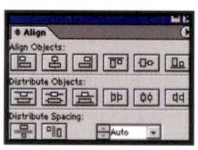
Speedy editing and formatting are the key: master the palettes, and you master *Illustrator* itself...

Actions

Record and save commonly used commands as macro-like actions, then replay the sequences with one click at any later time, even in another document or on another computer running *Illustrator*. Actions can even control the program interface, for example moving dialog boxes around the screen. Over 20 preset actions come with *AI10* as standard.

Align

Arrange two or more objects together in different ways, aligning their centres or edges, and distributing them away from each other. You can even redistribute the spacing, all with perfect precision. **[Shift-F7]**



Appearance

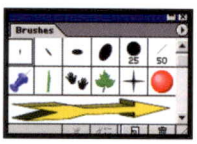
More than just an information panel, the Appearance palette reveals and controls the hierarchy of visual attributes you've applied to selected layers, groups and objects such as fills, strokes, styles and effects. The row of buttons at the bottom enables you to maintain the current appearance, clear all attributes out, reduce them to the basics, duplicate an appearance, or delete it. **[Shift-F6]**

Attributes

Something of a jack of all trades, the Attributes palette controls how objects look and interact as you work, and also presents an easy way of turning artwork into image maps, complete with URL links and comments.

Brushes

Create custom strokes, apply them to paths, and save them for reuse in other artwork. *Illustrator* comes with a variety of Calligraphic, Art, Scatter and Pattern brushes to which you can add your own. **[F5]**

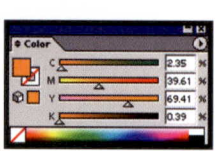


Character

Alter the font, typestyle, size, and a host of other properties of selected text. You can adjust kerning and tracking, leading, baseline shift and both horizontal and vertical scaling. There are now also multilingual features built into the palette.

Colour

Pick colours from the spectrum pane, or mix them by dragging the sliders and entering values in the fields. Colours can be applied directly to fills and strokes, or saved to the Swatches palette. Quick access to solid black, solid white, or a colour value of None are presented as swatch buttons. **[F6]**

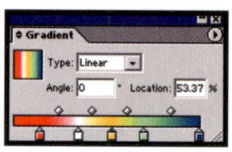


Document Info

Get details on what's in the current document or selection in full and at a glance. The palette menu specifies what area is covered in the report: styles, brushes, fonts and so on. This info can be saved to a text file.

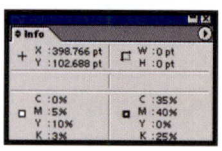
Gradient

The Gradient palette presents an intuitive slider interface for the building of multi-step gradients. To add a colour, drag it over from the Swatches or Colour palette and drop it on the slider. To remove, just drag it away again. Colour locations and intermediate transition points can be moved independently. The palette supports both radial and linear gradients, and enables you to change the angle by entering a numeric value in degrees. **[F9]**



Info

This palette displays basic information feedback as you work, showing your mouse cursor co-ordinates in real time and handy details such as the size of selected objects, the current font, and the current stroke and fill colours. **[F8]**



Layers

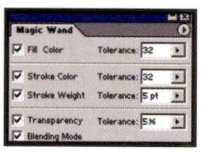
Build your work up in overlapping, transparent layers, and manage them here. The palette displays the layer, its contents and associations in an expandable, hierarchical format. Layers can be re-ordered, hidden, locked and merged, or even converted to clipping paths. **[F7]**

Links

Each time you place a bitmap image into some *Illustrator* artwork, a thumbnail and record of where the original file can be found is added to the Links palette. It works as a visual reminder of the placed images in a document, a quick way of jumping to them on the page, and a management tool for keeping the links with external files intact.

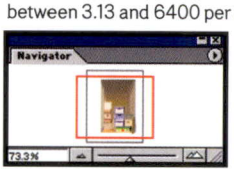
Magic Wand

Here's where you tell the Magic Wand tool what to look for. It can hunt for fill and stroke colours, stroke weight, transparency and blending mode in any combination and at independently variable tolerance levels. Tolerances can be entered as numbers or by dragging on pop-up sliders.



Navigator

Never get lost in a page at any magnification. Just drag the red rectangle over the thumbnail in the Navigator palette to scroll around your page interactively. You can zoom in and out by clicking on the mountain symbols, dragging on the slider, or entering a value between 3.13 and 6400 per cent.

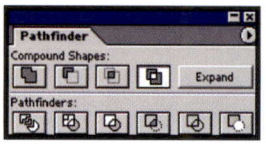


Paragraph

Here, you can customise the presentation of any text which runs over more than one line, with alignment, indents and spacing, not to mention hyphenation.

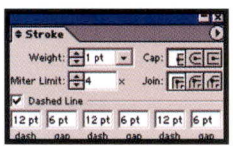
Pathfinder

Combine and break apart multiple vector objects in a variety of ways. Changes to the palette now make compound shapes easy to build, allowing you to re-edit. **[Shift-F9]**



Stroke

Alter the width and corner/end styles of stroked paths here, and turn any stroke into a continuous dashed line with up to three different dash and gap lengths in a repeated group. **[F10]**

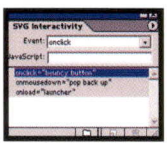


Styles

Having spent time crafting a custom look for an object, you might want to save it and apply it to other objects without starting all over again or recording an action. Copying the look to the Styles palette ensures you can reuse it in other artwork too, and updating any style causes all instances on the page to update with it. **[Shift-F5]**

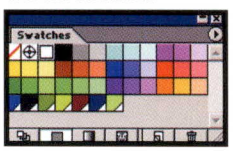
SVG Interactivity

The way to create SVG graphics is now opened up for budding interactive multimedia designers. This palette makes it easy to apply JavaScript routines to mouse events, embedding interactive features into your artwork that can then be exported to SVG format.



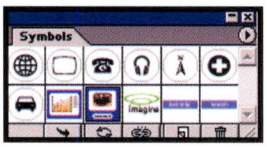
Swatches

Adobe software design convention keeps colour libraries separate from colour mixing. The Swatches palette is used for storing and applying specific colours, gradients and patterns. If you want to use a particular colour, gradient or pattern more than once, just copy it to the Swatches.



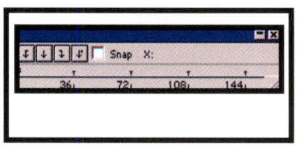
Symbols

New to *AI10*, this is like a Swatches palette for graphic objects. Items copied here can be reused by dragging or painting them back to the page, whereupon they maintain a link to the original. If you then change the symbol in the palette, all instances will update. **[Shift-F11]**



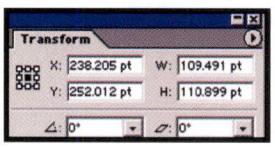
Tab Ruler

Call up this floating ruler to help you align tab settings for your text-filled frames, just like in a word processor or DTP package.



Transform

A quick way of accurately moving and resizing objects, or changing their rotation angle and shear value. The palette menu includes further commands for horizontal and vertical flipping. **[Shift-F8]**

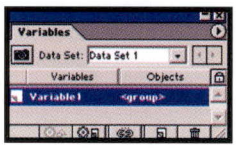


Transparency

This is an exceptionally important PostScript-friendly feature. It enables you to apply simple transparency to objects and groups by changing their overall opacity, or more complex effects with the use of an alpha channel. The approach is similar to the one taken in *Photoshop*, except presented in its own palette rather than bundled as a layer attribute. **[Shift-F10]**

Variables

Key to *AI10*'s data-driven graphics features, this makes it possible to work with variables and data sets. The body of the palette lists the type and name of each variable in the document. If a variable is bound to an object, the Objects column displays the object name as it appears in the Layers palette.



The Tools palette

Illustrator's main Tools palette has grown bigger yet again. Here's your handle on which tools are found in which flyout and how to select them with keyboard shortcuts, power-user style...

- Adobe Online

- Selection [V]

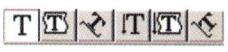
- Direct Selection [A]
- Group Selection

- Magic Wand [Y]

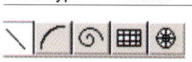
- Direct Select Lasso [Q]
- Lasso

- Paintbrush [B]

- Pen [P]
- Add Anchor Point [+]
- Delete Anchor Point [-]
- Convert Anchor Point [Shift-C]



- Type [T]
- Area Type
- Path Type
- Vertical Type
- Vertical Area Type
- Vertical Path Type



- Line Segment
- Arc
- Spiral
- Rectangular Grid
- Polar Grid

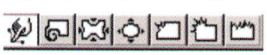
- Pencil [N]
- Smooth
- Erase

- Rectangle [M]
- Rounded
- Rectangle
- Ellipse [L]
- Polygon
- Star
- Flare

- Rotate [R]
- Reflect [O]
- Twist

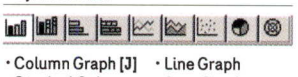
- Scale [S]
- Shear
- Reshape

- Free Transform [E]
- Zoom [Z]



- Warp
- Twirl
- Pucker
- Bloat
- Scallop
- Crystallize
- Wrinkle

- Symbol Sprayer [Shift-S]
- Symbol Shifter
- Symbol Scruncher
- Symbol Sizer
- Symbol Spinner
- Symbol Stainer
- Symbol Screener
- Symbol Styler



- Column Graph [J]
- Stacked Column Graph
- Bar Graph
- Stacked Bar Graph
- Line Graph
- Area Graph
- Scatter Graph
- Pie Graph
- Radar Graph

- Gradient Mesh [U]
- Gradient [G]

- Eyedropper [I]
- Paint Bucket [K]
- Measure

- Blend [W]
- Autotrace
- Slice
- Slice Select

- Scissors [C]
- Knife
- Hand [H]
- Page

- Fill Colour
- Stroke Colour
- Bring Stroke/Fill to Front [X]
- Swap Fill and Stroke Colours [Shift-X]
- Default Fill and Stroke [D]

- Colour [<]
- Gradient [>]
- None [/]

- Standard Screen Mode [F]
- Full Screen Mode with Menu Bar [F]
- Full Screen Mode [F]

Object shortcuts

This collection of handy keyboard shortcuts will help you edit objects in your artwork effortlessly...

Repeat the last Transform command or action: Command-D (Mac) or Ctrl-D (PC)
Open the Move dialog box: Command-Shift-D (Mac) or Ctrl-Shift-D (PC)

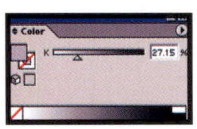
Bring to Front: Command-Shift-] (Mac) or Ctrl-Shift-] (PC)
Bring Forward: Command-] (Mac) or Ctrl-] (PC)
Send Backward: Command-[(Mac) or Ctrl-[(PC)
Send to Back: Command-Shift-[(Mac) or Ctrl-Shift-[(PC)

Group: Command-G (Mac) or Ctrl-G (PC)
Ungroup: Command-Shift-G (Mac) or Ctrl-Shift-G (PC)
Lock: Command-2 (Mac) or Ctrl-2 (PC)
Unlock All: Command-Option-2 (Mac) or Ctrl-Alt-2 (PC)
Hide: Command-3 (Mac) or Ctrl-3 (PC)
Show All: Command-Option-3 (Mac) or Ctrl-Alt-3 (PC)

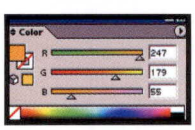
Join: Command-J (Mac) or Ctrl-J (PC)
Average: Command-Option-J (Mac) or Ctrl-Alt-J (PC)
Make Blend: Command-Option-B (Mac) or Ctrl-Alt-B (PC)
Release Blend: Command-Option-Shift-B (Mac) or Ctrl-Alt-Shift-B (PC)
Make Clipping Mask: Command-7 (Mac) or Ctrl-7 (PC)
Release Clipping Mask: Command-Option-7 (Mac) or Ctrl-Alt-7 (PC)
Make Compound Path: Command-8 (Mac) or Ctrl-8 (PC)
Release Compound Path: Command-Option-8 (Mac) or Ctrl-Alt-8 (PC)

The Colour palette

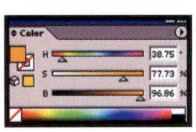
The Colour palette provides five methods of mixing colours. You can swap from one mode to another by selecting them in the palette's pop-up menu...



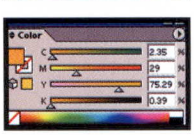
Greyscale



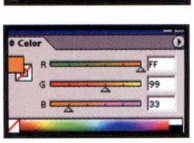
RGB (red, green, blue)



HSB (hue, saturation, brightness

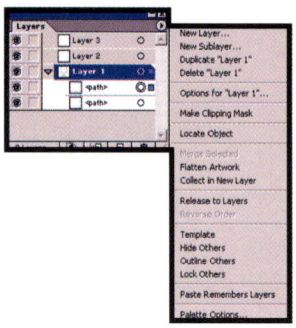


CMYK (cyan, magenta, yellow, black)



Web-safe with snap-to action and hex codes

The Palette menu



The floating palettes have their own context-sensitive mini-menus. Call up a menu from a palette by clicking on the triangular arrow in a circle, just under the palette's menu bar and to the right. Because the menu is only relevant to the controls within the palette in question, this is easier than hunting through the menus, right-clicking on page objects, or choosing from a ribbon bar of command buttons.

View shortcuts

There are more than just a few ways to alter the view on your artwork...

Actual Size: Command-1 (Mac) or Ctrl-1 (PC)
Fit In Window: Command-0 (Mac) or Ctrl-0 (PC)
Zoom In: Command-= (Mac) or Ctrl-= (PC)
Zoom Out: Command— (Mac) or Ctrl-- (PC)

Outline/Preview toggle: Command-Y (Mac) or Ctrl-Y (PC)
Pixel Preview: Command-Option-Y (Mac) or Ctrl-Alt-Y (PC)
Overprint Preview: Command-Option-Shift-Y (Mac) or Ctrl-Alt-Shift-Y (PC)

Show/Hide Edges: Command-H (Mac) or Ctrl-H (PC)
Show/Hide Template: Command-Shift-W (Mac) or Ctrl-Shift-W (PC)
Show/Hide Rules: Command-R (Mac) or Ctrl-R (PC)
Show/Hide Bounding Box: Command-Shift-B (Mac) or Ctrl-Shift-B (PC)
Show/Hide Transparency Grid: Command-Shift-D (Mac) or Ctrl-Shift-D (PC)
Show/Hide Grid: Command-U (Mac) or Ctrl-U (PC)

Show/Hide Guides: Command-; (Mac) or Ctrl-; (PC)
Lock/Unlock Guides: Command-Option-; (Mac) or Ctrl-Alt-; (PC)
Make Guides: Command-5 (Mac) or Ctrl-5 (PC)
Release Guides: Command-Option-5 (Mac) or Ctrl-Alt-5 (PC)

Type shortcuts

Illustrator is a powerful text design tool in the hands of a skilled typographer – these shortcuts should help...

Left Align Text: Command-Shift-L (Mac) or Ctrl-Shift-L (PC)
Centre Text:– Command-Shift-C (Mac) or Ctrl-Shift-C (PC)
Right Align Text: Command-Shift-R (Mac) or Ctrl-Shift-R (PC)
Justify Text: Command-Shift-J (Mac) or Ctrl-Shift-J (PC)
Full Justify Text: Command-Shift-F (Mac) or Ctrl-Shift-F (PC)

Increase Size (font step): Command-Option-Shift-> (Mac) or Ctrl-Alt-Shift-> (PC)
Increase Size (1pt): Command-Shift-> (Mac) or Ctrl-Shift-> (PC)
Decrease Size (font step): Command-Option-Shift-< (Mac) or Ctrl-Alt-Shift-< (PC)
Decrease Size (1pt): Command-Shift-< (Mac) or Ctrl-Shift-< (PC)

Kern Looser – Command-Shift-] (Mac) or Ctrl-Shift-] (PC)
Kern Tighter – Command-Shift-[(Mac) or Ctrl-Shift-[(PC)
Discretionary Hyphen – Command-Shift-- (Mac) or Ctrl-Shift-- (PC)

Expertise supplied by Alistair Dabbs, [e] ali@dabbsnet.com.

Illustration: Domanic Li @ The Organisation **Email:** organise@easynet.co.uk

Creating graphics for multiple formats

We show you how to create graphics with *Illustrator 10* for a variety of uses, and take a look at some of the export options available for both print and the Web...

Illustrator has always been an extremely versatile drawing package, with the previous incarnation bringing long-awaited transparency and live effects, as well as a new layer system. With version 10, Adobe has introduced a multitude of useful improvements for both print and the Web. For print designers, this version brings the welcome addition of envelopes, a whole host of warp tools, a familiar Magic Wand tool and a *Photoshop*-compatible compound shape system. For Web designers, the update offers new shape instance features, plus the ability to create templates for data-driven graphics.

In the following tutorial, we show you just how versatile *Illustrator 10* is at creating graphics for a range of outputs. Starting off with generating a graphic using the program's drawing tools, we show you how to get the best results when exporting files for print use. We'll also demonstrate just how useful *Illustrator*'s blending tools are for creating animations, before taking a look at some of the options available when saving your files to the SWF and SVG formats.

Tutorial files

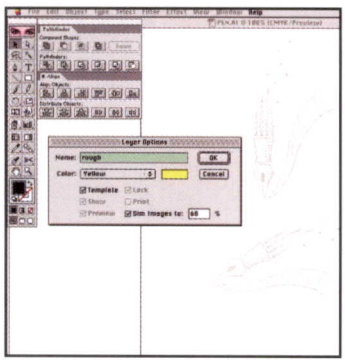
All the files you need to complete this tutorial can be found on the CD supplied with issue 63 of *Computer Arts*, in the folder Tutorial\AI10\gfx. Artwork and expertise by Domanic Li – you can contact him via his agent at The Organisation, [e] organise@easynet.co.uk, or head to [w] www.organisart.co.uk.

Part 1: Putting pen to paper

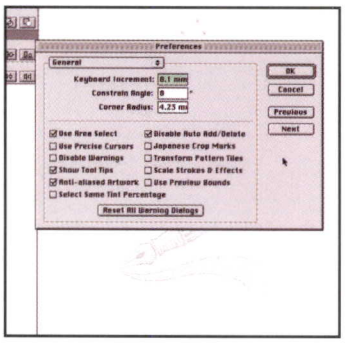
First we'll generate a pen graphic, using *Illustrator 10*'s Pathfinder and Align tools to get everything pixel-perfect...

Artwork mode

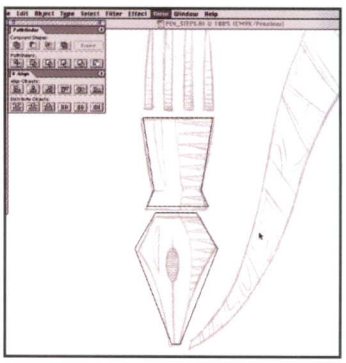
You may find it easier to do most of the construction work in Artwork mode. This way you only have to deal with the paths themselves, without worrying about fills and strokes getting in the way of your selections. You can easily switch between Artwork and Preview modes using Command-Y (Mac) and Control-Y (PC).



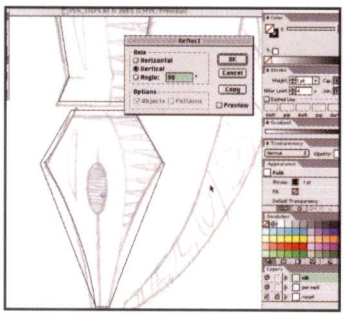
1 Before starting out in *Illustrator* we drew a rough, scanned it into *Photoshop* and saved it as a greyscale JPEG. This was opened in *Illustrator*, and to make things easier a copy was made and spun into a vertical position. The layer was renamed and turned into a template (Layer Options>Template), with a dim setting of around 60 per cent.



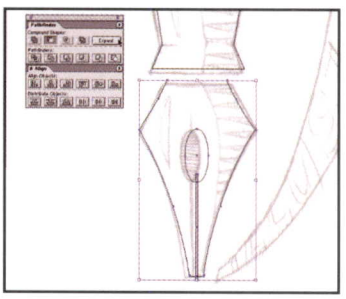
2 Customising the document to your own needs will save valuable time later on. In this case, palettes were rearranged, a swatch palette made up, and the following preferences were changed: Disable Auto Add/Delete was checked, General Units changed to millimetres, and the Keyboard Increment settings to 0.1mm (enabling you to micro-adjust the position of objects or points using the cursor keys).



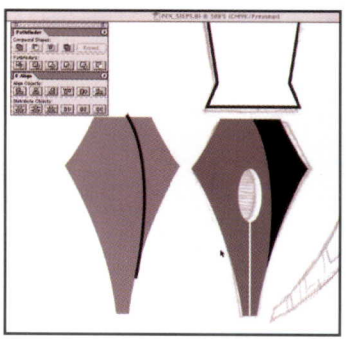
3 Now we must create the basic shapes of the pen graphic. You could easily draw them freehand with the Pen tool, but we wanted a particularly clean look, so the basic shapes were made up from polygon shapes on separate layers. These were edited using the Direct Selection tool, plus a combination of moving and/or resizing with Shift held down to constrain movement.



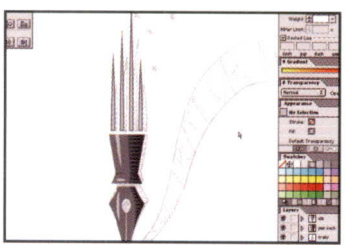
4 With the Pen tool, draw out the nib's curved edges using the template as a guide. With the Reflect tool, Option/Alt-click near the centre to bring up the Reflect tool options. Use the existing settings and click on Copy to create a mirror image of the path. Select both paths and the original shape, and use the Divide Pathfinder (make sure the paths don't have fills) to slice the original shape. Use the Direct Selection tool to select unwanted areas and delete them.



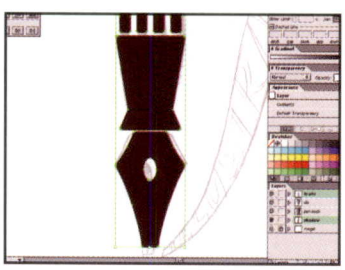
5 Create an oval and a rectangle for the hole and channel of the nib. Select all the nib shapes and use the Horizontal Align Centre button to make sure everything is lined up. Select all three shapes, then use the Subtract From Shape Area tool in the Pathfinder palette to give the shape a fill colour. If you switch to Artwork view you can still see the editable shapes that make up the compound shape, however, we need to expand the compound for the next step (Pathfinder palette>Expand).



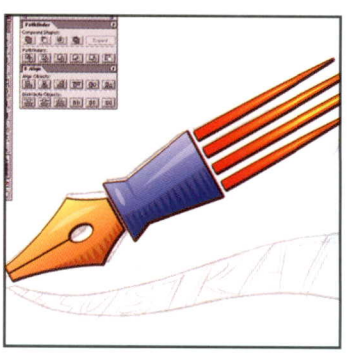
6 To create the shadowed area of the nib, copy it, then lock it, and paste in front to place a copy in the same position. Use the Pen tool to draw a line bisecting the shape (make sure this line doesn't have a Fill value). Select the copied nib shape and the bisecting line, and use the Divide Pathfinder to delete the unwanted area. Give this shape a contrasting fill colour, then unlock the original nib shape.



7 The different parts of the pen were created on separate layers; the spiky details on the shadows were created using the same method as the shadow area, drawing out a path that was intersected with a copy of the shadow shape. The trail shapes were created using ovals cut in half, with the curved point converted to a sharp one using the Convert Direction tool. The trail shapes were selected and offset to create the inner shapes.



8 Colour the individual shapes using gradients and solid fills, and use blending modes such as Multiply and Screen to give added depth to the shadow and highlight shapes. Copy the main shapes, then paste and offset them in a new layer below everything else to create an outline/shadow. These shapes were stroked, an outline stroke was applied, and the inner shapes were deleted to clean things up.



9 Finally, select everything on all layers and rotate the pen graphic into the right position according to the template. Now would be a good time to save, if you haven't done so already. You can refer to the file pen.ai on the CD.

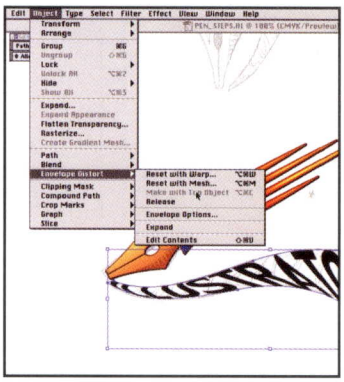
Part 2: Generating text

Next we'll create the flowing text, using *Illustrator*'s brand spanking new envelope features...

Be organised

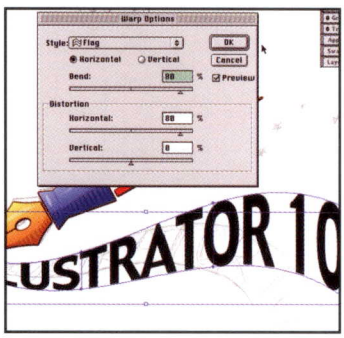
Create new elements in your artwork on separate layers, and rename them wherever possible. This helps you keep track of where things are in your work, but it also makes selecting easier, and enables you to isolate parts of your work when necessary. Press Alt/Option-click on the eyeball next to a layer in the Layers palette and it will hide all other layers (just repeat to reveal them).

1 Create some text on a new layer, then use the Group Selection tool to resize it to the template. There are three types of envelopes: Warp, Mesh and Top Object. Warp envelopes work like the Warp options in *Photoshop 6*; Mesh creates a grid similar to the Gradient Mesh, with handles that you can adjust to warp; Top Object takes the artwork and warps it to the shape of whatever shape is at the top.

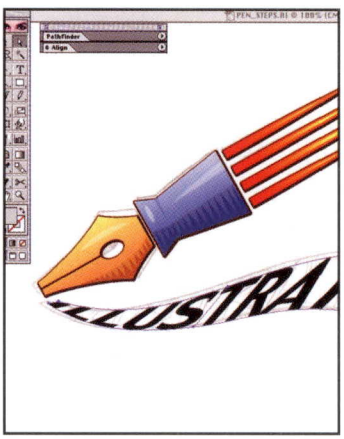


2 We'll try using Top Object first. Draw out a flowing shape according to the template drawing and select both the text and the shape, making sure that the flowing shape is above the text, then use Object> Envelope Distort>Make With Top Object. The results are quite interesting, but not quite what we wanted.

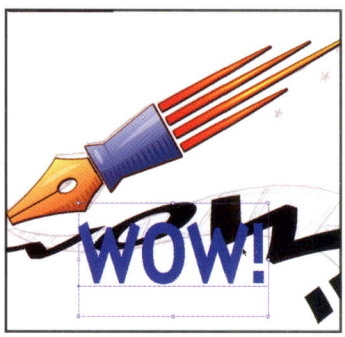
3 Not to worry, though – we can push and pull the points and handles around to affect the underlying text. A little work will have the text looking closer to how we originally envisioned.



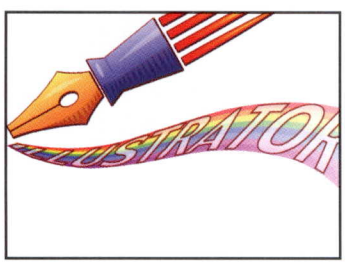
4 If this seems like hard work, you could use Make With Warp instead. Start out with just the type selected, then choose Object>Envelope>Distort>Make With Warp. You can preview how the different settings will look if you check the box. Experiment with different settings; here we've used the flag settings with both a horizontal bend and horizontal distortion of 80 per cent.



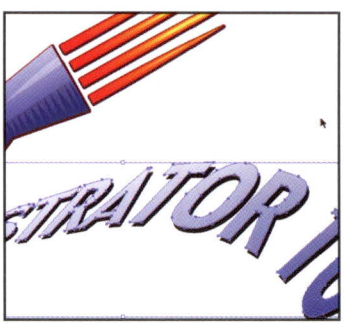
5 Again the envelope needs a little tweaking to get the type looking right, but this way means slightly less editing than before. Keep the warp shape close to the template and you shouldn't go far wrong.



6 The great thing about the envelope options, is that the original artwork remains editable – even text. Use Object> Envelope Distort>Edit Contents and the text becomes as editable as normal text, enabling you to change its properties. To make things easier, while doing this turn on Smart Guides in the View Menu (Command-U). If you want to re-edit the envelope, use the Edit Contents command again.



7 Once you're happy with your text shape, try experimenting with it on different layers. Here we created rectangles with rainbow colours which were grouped and warped with a duplicate of the type envelope. This rainbow was placed behind the type, then given a simple fill and outline. The type's opacity was knocked back, then the type and rainbow were grouped and masked by a rectangular gradient.



8 This example just has a simple gradient applied to one type object, and a solid fill applied to a second type object which was offset behind it. You can also expand warp envelopes (Object>Envelope Distort> Expand), which turns the artwork into editable paths.

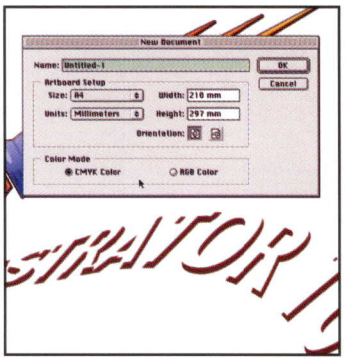
9 To finish off the type graphic, copy the type object, paste a copy behind and offset it. Expand both these envelopes, then give the front type a plain white fill and the rear type a dark coloured fill. The finished file is on your CD, named pen_layers.ai.

Part 3: Exporting for print

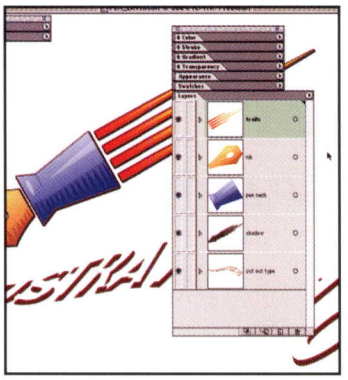
We take a look at the various features available in *Illustrator 10* when exporting your graphics for print...

Layered files

When exporting layered files, it's important to know that only top level layers will be written. Any sub-layers will be flattened with its parent layer. It can be easier when creating artwork to go into the layer options and choose Show Layers Only in the palette options to avoid confusion.

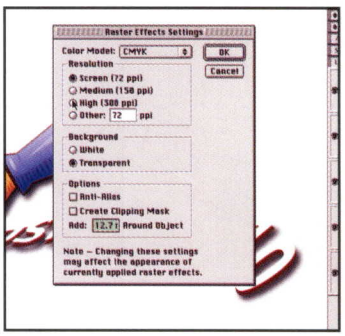


1 Whenever you create a new file in *Illustrator* you can choose between RGB and CMYK colour modes, and for print CMYK is the way to go, ensuring that you don't have any colours that may be out of gamut. If you open a file which has a mix of RGB and CMYK, *Illustrator* will alert you, offering the option to choose which colour mode you want to work with.



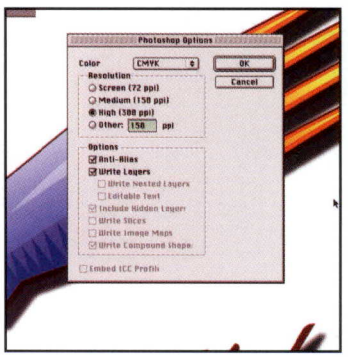
2 *Illustrator* enables you to export to *Photoshop* and includes support for layers, so if you create your artwork in separate layers in *Illustrator* you'll be able to edit them further in *Photoshop* if you wish. The pen graphic has been created with each element on a separate layer, so we'll use this as an example.

3 First though, we'll tweak the graphic. Copy one of the type objects and the shadow shape, then paste them both into a new layer below everything else. Target these shapes in the Layers palette (click on the little button to the right), then apply a Gaussian blur. Name and save the file as pen_dropshadow.ai.

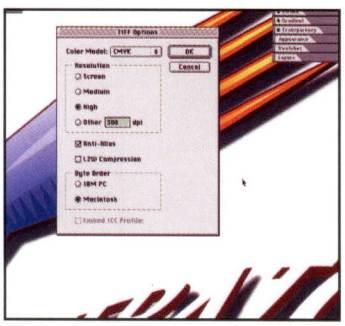


4 When exporting files that include live effects, *Illustrator* rasterises these effects according to settings in the Effect menu (Effect>Rasterise>Raster Effect Settings. These settings enable you to choose what dpi you want to use for any effects in your document, so you can set a low dpi setting when you're working on your file to speed the process, then bump it up before exporting for highest quality.

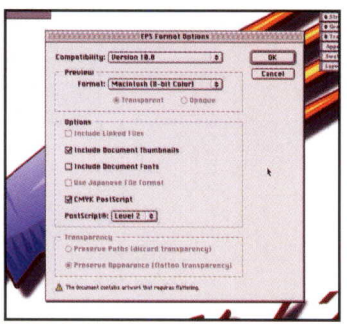
5 Note the difference that raster effect settings make to artwork which includes effects. For most print work, a setting of 300dpi should suffice. Be warned, though, that complicated work with lots of effects can take quite a while to export using high raster effect settings.



6 Go to File>Export, choose PSD from the dropdown menu and hit Export. This will bring up the Photoshop Export dialog box, with options for things like dpi settings, colour modes, anti-alias options and layer writing. You can also choose to export with editable type which you should be able to edit in *Photoshop*. Click on OK to save as pen_dropshadow.psd.



7 *Illustrator* also enables you to export or save files to a myriad of different file formats, including other common print file types such as TIFF and EPS. Choose the file type you want to use and hit Export to bring up the relevant dialog box. The TIFF box is similar to the one found in *Photoshop*.



8 The EPS dialog box gives you options like version compatibility, transparency, PostScript levels and thumbnail and preview options. It also enables you to include document fonts, too, so you can be sure that any text in your document will appear as you designed it.

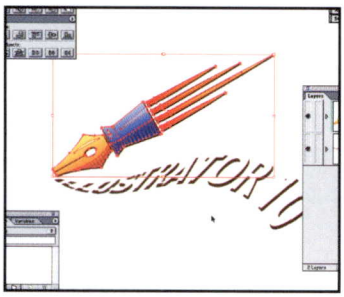
9 Here's the pen_dropshadow.psd file in *Photoshop*, with the layers just as they were in *Illustrator*. Notice how the layer names are intact and hidden layers are included (as long as the option was checked). We've applied layer effects to the individual layers to add more depth.

Part 4: Exporting to Flash

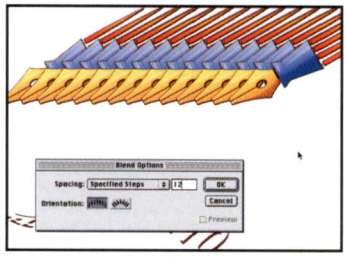
Next we'll create and export a basic *Flash* animation in *Illustrator*, using blending tools and the Release To Layers command...

Blending issues?

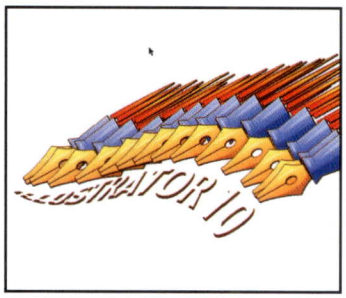
If you have a problem with blending groups of objects, remember that in order for the blend to work correctly it's important that there are no unnecessary groups or compounds in your artwork. So, in the Layers palette double-check, ungroup or release any unnecessary groups and compounds you find, and make sure that objects or groups to be blended have the same amount of points.



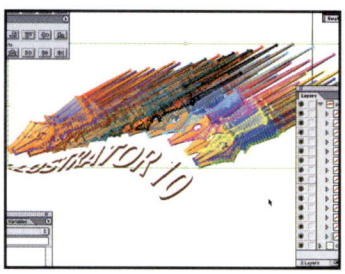
1 We'll start by creating a simple animation to export to the SWF format. Load up the pen_layers.ai file from your CD. Select all the pen shapes, then group them to place them into a single layer. Rename the layer and remove any empty layers. Ungroup both sets of type on the type layer.



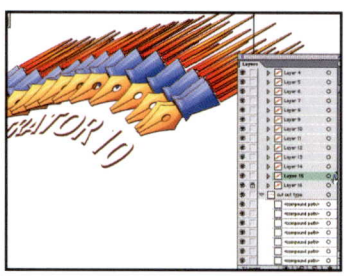
2 Go to Object>Blend>Options, and choose Specified Steps from the dropdown menu. Enter 12 as the number of steps, and make sure the orientation is set to Page. Alt/Option-drag a copy of the pen graphic to the right, holding Shift to constrain its movement. Now blend the two pens together by pressing Command-Alt-B or by using the Blend tool.



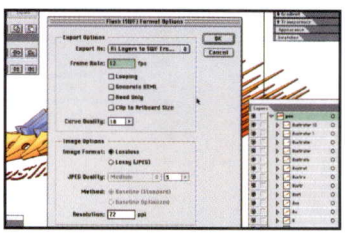
3 Draw a path to follow the top of the type's contour. Select the blended pens and this path, then use Object>Blend> Replace Spline. This command will place the blended pens along the curve of the path. It helps to move this curved path slightly above the type.



4 Now expand the blend via Object> Blend>Expand, and ungroup the result. It's important to ungroup the expanded blend for the next stage to work. Select the pen layer, and in the Layers palette options choose Release To Layers. This will automatically place the individual pens on separate layers.



5 Using the Black Selection tool, select the first letters in the type. In the Layers palette you'll notice that a coloured chip appears to indicate the selected artwork. Alt/Option-drag this coloured chip to the lowest pen layer to drag a copy there, then lock this pen layer so it doesn't interfere with the selection process.



6 Now repeat this process, each time including the next letter in the selection and dragging them to the next pen layer. Once you have finished, delete the type layer. Name and save a copy of the file as finished_animation.ai, then export as SWF. In the dialog box, choose AI Layers To SWF Frames and hit OK. You can check out your finished animation in *Flash, QuickTime*, or a browser of your choice.

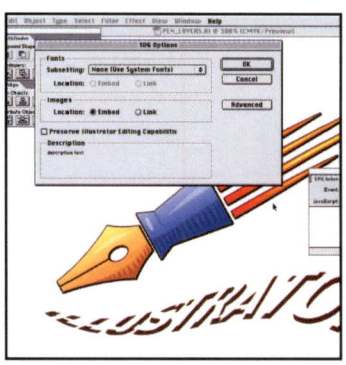
Part 5: Scaleable vector graphics

SVG enables the creation of high-res vector images for Web use that can include gradients, JavaScript interactivity, and the ability to zoom and pan images with no loss of resolution...

Rasterised

When exporting as SVG, gradient meshes are rasterised as JPEGs. Bitmaps without alpha channels are rasterised as PNG files.

1 Creating and saving SVG files is a breeze in *Illustrator*. Create your artwork as normal and choose Window> Show SVG Interactivity. Select the artwork, choose an event from the list, enter some JavaScript, then hit the icon at the bottom of the palette to apply it.



2 Now simply save as either SVG or SVGZ (with compression). You can choose whether to preserve *Illustrator* editing capabilities, and also whether to embed or link images and fonts. The file can now be embedded in an HTML page.

3 This is the pen graphic as displayed in Explorer. Command-click (Mac) or right-click (PC) to access the Zoom commands. For more information on SVG, go to **[w]** www.adobe.com/svg. ca

1

Michael Lotenero

Artist Michael Lotenero makes the most of *Illustrator*:

"I love the rich graphic colours and the quick results..."

As the self-proclaimed "weird kid in class who made monsters from clay", Michael Lotenero now watches his own son doing the same thing, but these days it's clay robots. While his design career began at the Pittsburgh Art Institute in the 80s when computers and art were less than compatible, his son is growing up with technology as second nature.

For an artist who has always loved to work with large, hands-on projects, Michael has adapted brilliantly to the digital medium, armed with a copy of Adobe *Illustrator* and an iMac. As well as just finishing a digital video project and installation for the Pittsburgh Film-makers Festival in November, he has provided illustrations for magazines such as *Red Herring* and *e-Variety*, plus a new book by futurist Marshall McLuhan.

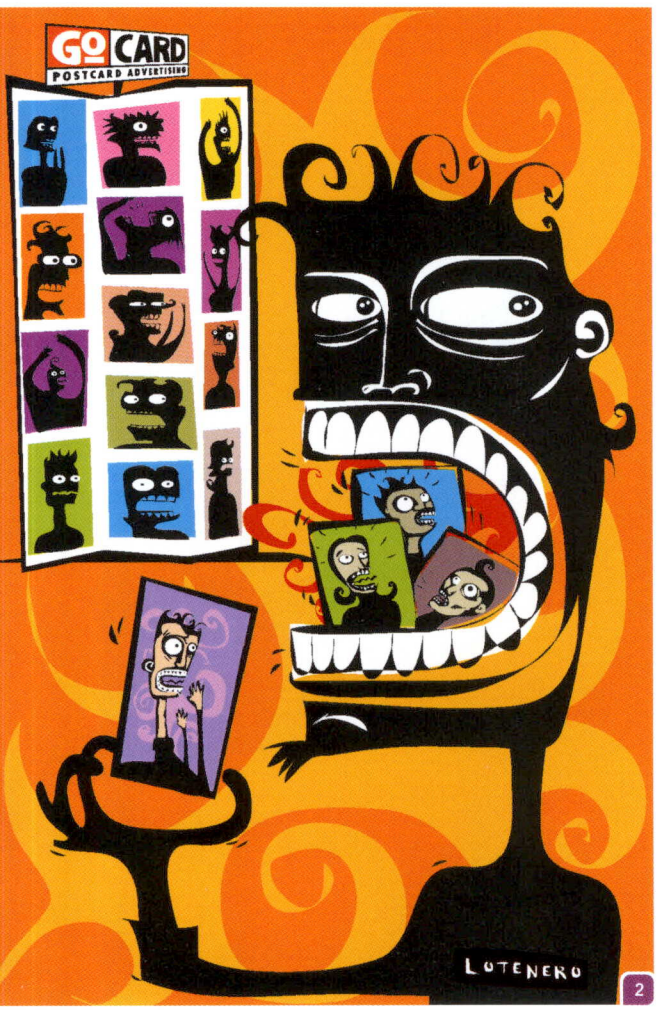
"I'm at a time in my life when I can focus on my own stuff and what I want to do," he says. At the moment, working with designer David Carson on the new publication by McLuhan, *Book of Probes*, fits the bill. Michael has been commissioned to provide illustrations that David manipulates into a collage, adding photography and quotes from the author. "David is a very talented guy – in the States he's a mini design celebrity."

Michael's skillful use of *Illustrator* has contributed to his success. "Although I like to paint, with *Illustrator* you can be more versatile. I love the rich graphic colours you can create and also the quick results. You can put down a bright red shape and drop some intricate black linework over the top of it, and it's just beautiful within minutes. Plus, you can of course move stuff around and use it with other packages like *Photoshop* and *Fontographer*, which is great."

But don't think you have to master every tool the software provides to produce great work, for Michael's illustrations are drawn using mainly the core features. "I use the Pencil tool almost exclusively, as I draw freehand from scratch or a sketch. I don't use layers or scan in images." Michael shies away from the finished veneer of computer design, and brings his work back down to earth. "I adjust the smoothness of my pieces to make them look more hand-drawn. In effect they're hand-drawn using a mouse, but it's hard to get that message across to people unless they can really see it."

The difference between Michael's fine art and his digital work is plain to see from the portfolio on his Website, Lotenero.com, but there's a similarity in style. "I wanted my digital, commercial work to look cleaner and have easier reproduction quality. I've used fine art for commercial uses on occasion with great results. It's just a lot slower than working in *Illustrator*." CB

Michael's portfolio can be viewed online at his Website [w] www.lotenero.com. You can email him at [e] mail@lotenero.com.



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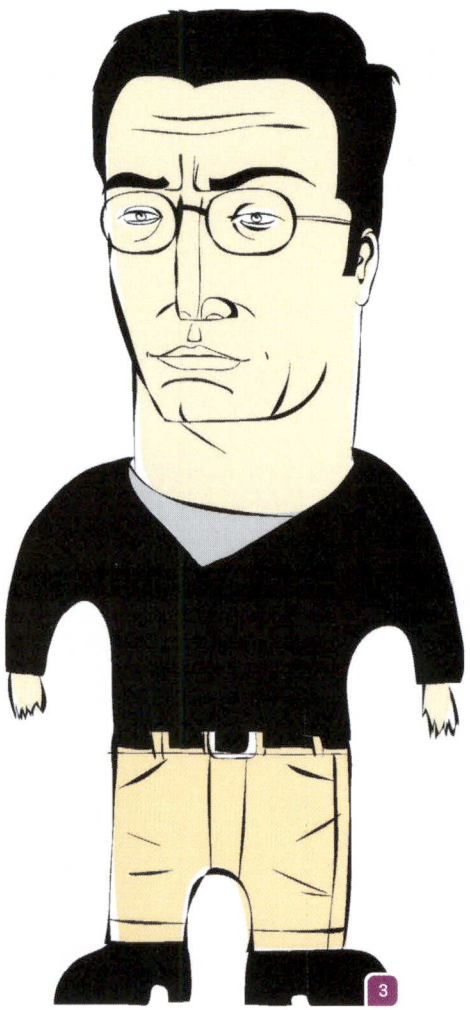

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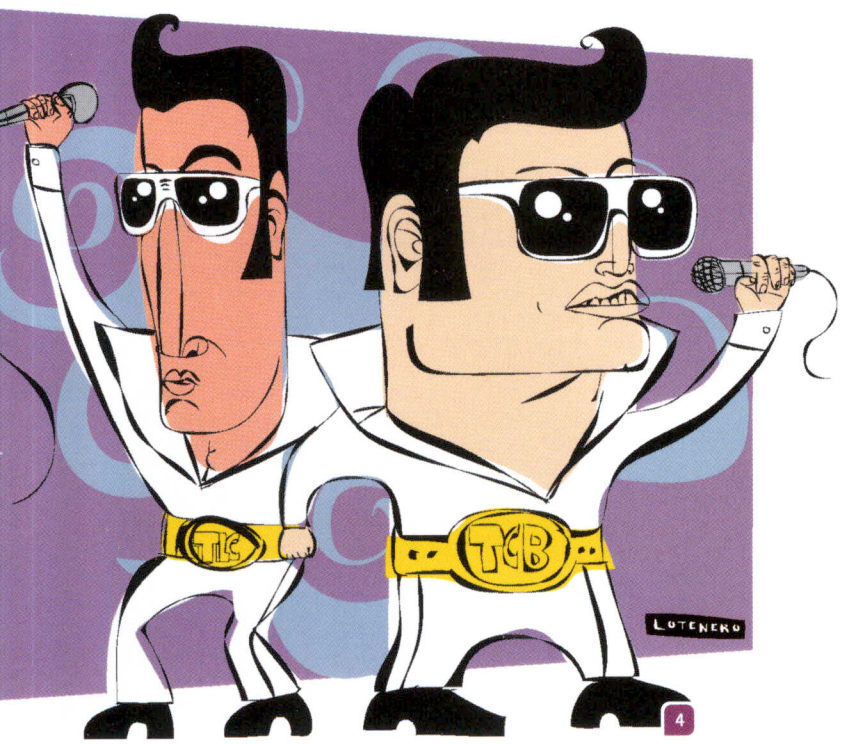
1. Created for the online and offline publication *Teradata* ([w] www.teradata.com), this illustration was used to depict the European Post Office's expanding capabilities into banking and other e-services.

2. This piece was created for the New York-based company, GoCard, a national distributor of free postcards to thousand of restaurants, bars, cafés, health clubs and college campuses in the US. It was a cross-branding effort, where GoCard asked different illustrators to interpret the product in their own style.

3.This image was made for a friend's birthday cake. "He was turning 40 and had been wearing this ensemble too often, so his wife thought if would be funny if everyone at the party came dressed in the same attire. He was quite amused."

4. Michael generated this rockin' illustration for *Pittsburgh Magazine*'s 'Best Of' issue. In this case it was Elvis impersonators.

5. This appeared on the propectuses sent out to potential students by Art Institutes International. The books were designed to educate students about the various schools, and encourage them to enrol.



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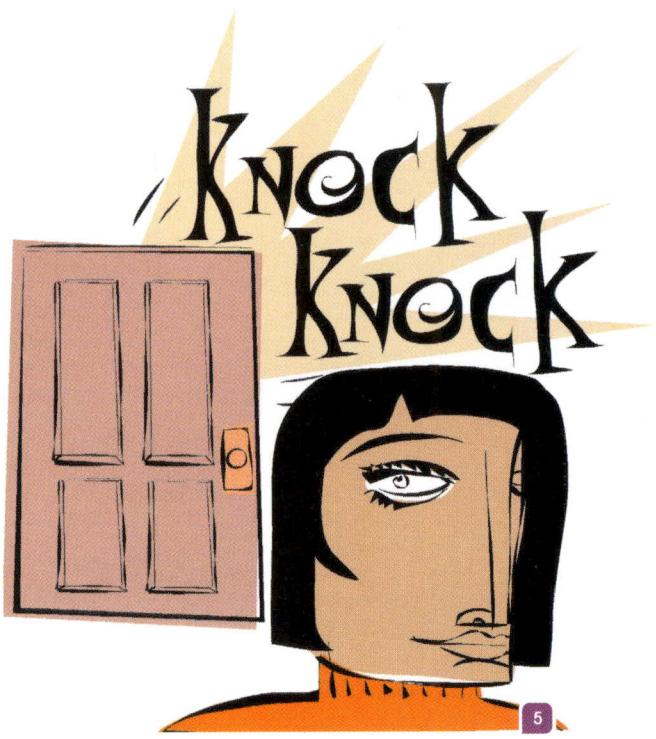

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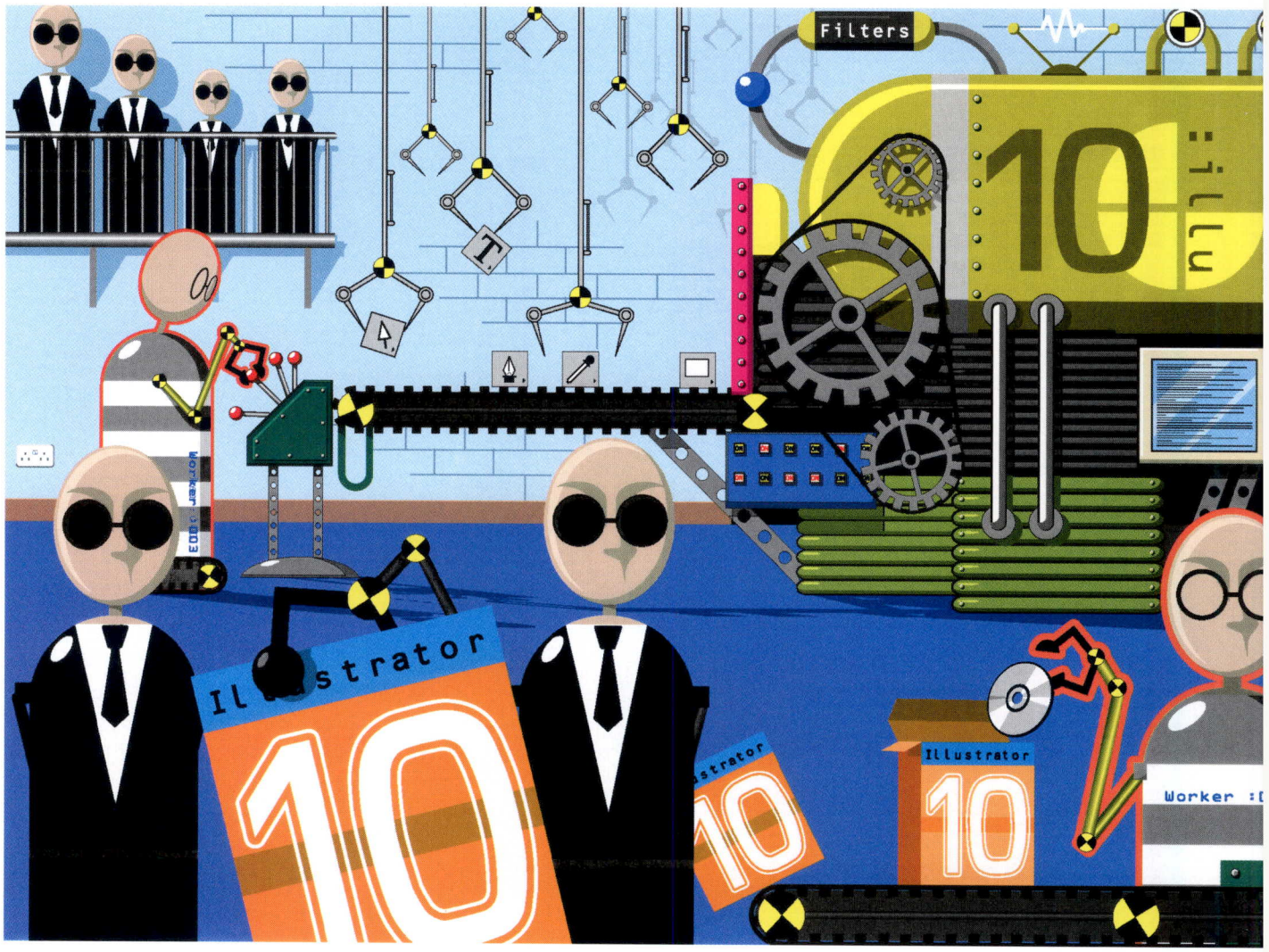


The development of AI10

Illustrator's Product Manager discusses the decisions behind version 10...

What goes into an upgrade? Do the software developers pick ideas from an internal pool or work on a league-table of user wishlists? Who decides which new features are most important? And how do they establish whether these features are going to be of any use to anyone in the real world?

These were some of the questions we put to Mordy Golding, Adobe's *AI10* Product Manager, based in the company's San Jose office. You could ask the same things for every software upgrade, but this time round they seem more relevant than ever. The latest release of *Illustrator* appears to have gone further than the conventional upgrade route, where a product attracts a heap of new features like a magnet attracts iron filings. Instead, it's evolving into a cross-media design package but, unlike some of its big-name competitors, without feeling ashamed about keeping in touch with its print-design roots.

Web and print

"We have a network publishing motto which says: 'Create once, publish anywhere'," explains Golding. "Although the Web and dynamic media are where the most fresh interest lies at the moment, *Illustrator* is relied upon for its usefulness in print." Given the current problems in the Web industry and the unexpected return to media diversity they have enforced, Golding wryly adds: "Perhaps now more than ever".

But the 'publish anywhere' motto implies that *Illustrator* should be expanding its scope to more Web-specific functionality. The simple ability to export to GIF, JPEG and PNG isn't enough any more. So *Illustrator 10* marches in with data-driven graphics and automatic image slicing and reslicing, alongside a handful of all-encompassing design enhancements such as envelope distortion tools and the concept of 'symbolism'. Then you have a bunch of wild features you wouldn't even expect in a vector design package at all, such as light

"We're constantly going out to customers to see how they're using the software" – Mordy Golding, Adobe

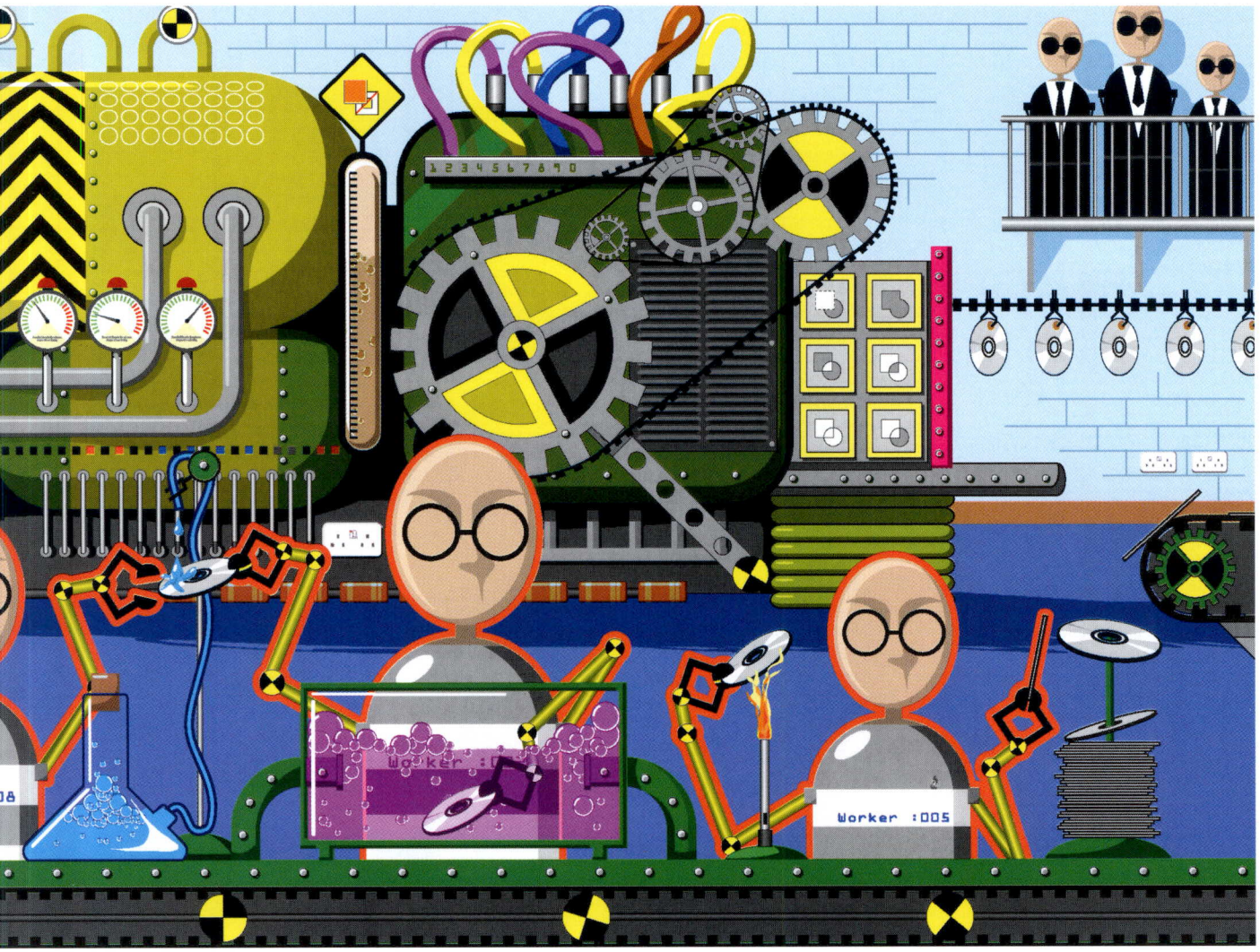


Illustration: Bryn Owens Email: blumtdog@freeuk.com

flares and a set of smudgy Liquify tools. Add to this native support for Windows XP and Mac OS X, and you begin to appreciate *Illustrator 10* as a major upgrade.

User demand

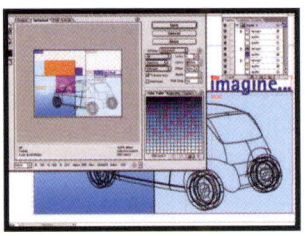
Returning to our initial question, was this all part of Adobe's long-term mission or a kneejerk response to diverse user demands? Golding makes no attempt to claim that there's a masterplan, instead stating blandly that the development of software is always based on what customers want. What's interesting, though, is that customers can't always express what it is they want. In other words, a company can't sit around waiting for users to come up with the solutions; for that, it has to go to the users and find out for itself.

"Throughout the development cycle, we're constantly going out to customers," says Golding, "not just to poll opinion, but to see how they're using the software. We look at specific features, sure, but also the whole workflow. It's the only way to come up with practical solutions." Basically, an Adobe team is sent out into the field, visiting an assortment of big and small installed bases of the software product in question. In the case of *Illustrator*, this includes famous companies such as Hallmark, *TIME* magazine and *Entertainment Weekly*, as well as those closer to Adobe's Californian home such as *The San Francisco Chronicle*. "We also visit the smaller people, companies with anything from 15 or 20 employees down to just two or three. And yes, our coverage includes individual freelance designers."

Somehow, this analysis of the way in which people use *Illustrator* goes into a steaming pot, out of which later emerges an upgrade.

Nice to slice

One example of where an idea went directly from user wishlist to product feature in *AI10*, was object-based slicing. Vector illustration packages are naturally popular for creating resizable and quickly customisable Web graphics such as buttons, logos, diagrams and special fonted text. But *Illustrator* users specifically wanted Adobe to take things further, especially after image slicing was streamlined in *Photoshop 6*. The company picked up on user requests for slicing and reslicing based on the flexibility that vector drawing affords. So, if you like the way *Illustrator 10* automatically rearranges and reformats image slices as you rearrange the layout, remember it was your idea to start with.



Having told *AI10* which objects to slice up in an image, it automatically reshifts the borders when the layout changes.

Precisely what goes on in that pot depends upon what has been discovered in the field. "Symbolism came about in an organic way," Golding reckons. "This feature enables people to draw, say, a bunch of flowers on-screen in a fraction of the time it used to. We looked at people's workflows and saw this as a solution. People wanted to do that kind of work, but hadn't asked for it." In other words, a user doesn't have to be able to report a problem for an investigative development team to see that it exists, and go on to fix it.

Increasing versatility

Another idea which came from Adobe was the implementation in *Illustrator 10* of data-driven graphics. It was a case of looking at what else the program could be made to do, rather than just enhancing what it already does. "Again we analysed how people worked, identified an issue and addressed it," recounts Golding. "They knew there was problem in their workflows but couldn't express what the solution might be." Data-driven graphics make it possible to link content to source information in databases, effectively to produce variable-data graphics. Having watched *Illustrator* users slave over multiple versions of artwork to suit different circumstances (imagine a series of reusable weather maps or bar charts based on financial reports), it made sense to automate the process, and even incorporate versatile support for XML.

In *Illustrator 10*, this has been extended to SVG design. SVG is a vector-based Web graphics format which Adobe has itself principally developed and promoted, yet offered up to the industry as an open standard; that is, with full code access and no licence fee. Before, you were able to use *Illustrator 9* to design the vector artwork and link interactive events to CGI scripts. *Illustrator 10* also enables you to link the artwork content itself to variable Web server data, so the SVG movie could incorporate the name of a Website visitor and be moulded to his or her preferences in real time — complete with live effects such as dropshadows behind text and so on.

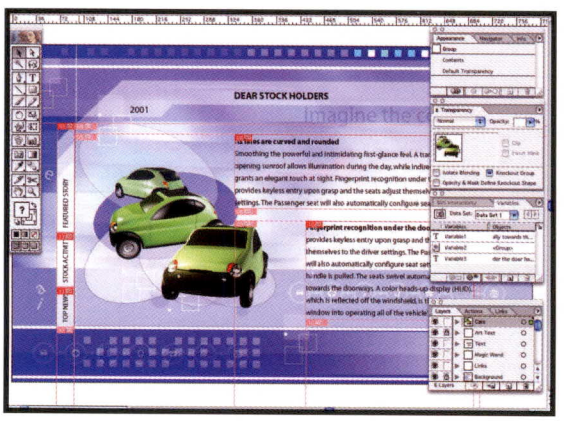
The intention wasn't, however, to pick up the Web baton and vanish in a cloud of dust. As Golding puts it, "Data-driven graphics are intended to appeal to print designers too." The potential isn't too challenging to imagine. Those working in print regularly need to produce personalised versions of standard layouts, whether they be direct mail brochures or something as simple as company business cards. In case you hadn't realised it, variable data is as much big news in digital print as it is on the Web. And on the subject of reusable graphics, the automated slicing tools make it easier than ever for print designers to bring their artwork to the Web with the minimum of fiddling.

Nor were all the ideas for new features derived from Adobe minds, as Golding readily admits. "Slicing came about from customer feedback. People were also actively requesting envelope tools, which we've added, but we've thrown in a whole lot more."

You wait 14 years for a decent envelope distortion tool, and suddenly along come nearly a dozen of them all at once, as shown here under Windows XP.

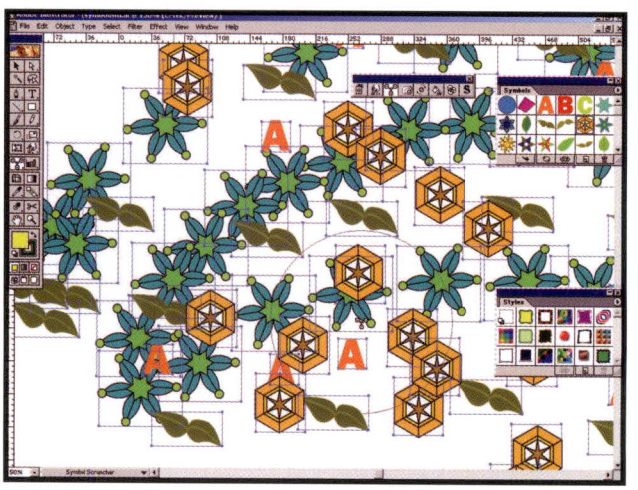
Not just a Carbon copy

Illustrator 10 will be Adobe's first ever product to be available in a Mac OS X-native edition. This is good news for those who bit the Apple bullet and upgraded to the new Unix-based operating system, only to meet a dearth of supported applications. As one of the biggest software publishers on the Mac platform, Adobe was seen dragging its heels in this respect. In its own defence, the company says that impressive though the first release of Mac OS X was, it presented too many performance and reliability issues to make rush upgrades feasible. With Mac OS X.1, everything changed and opened the way forward for full support without compromise. The company intends to stick to its original planned upgrade calendar, but each new Adobe release on the Mac over the next year or so will now include a native OS X.1 version alongside 9.x compatibility.

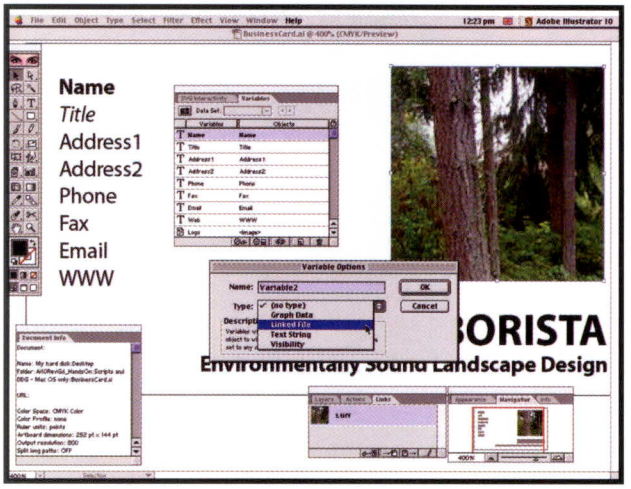


Mac users can enjoy not just the beauty of the Aqua interface, but the full background power of the recently upgraded Mac OS X.1, too.

> *"Data-driven graphics are intended to appeal to print designers too..."* – **Mordy Golding**, Adobe



Adobe likes to stamp its own character on what ought to be a standard feature, which explains why a plain symbol library isn't enough for *Illustrator 10*.



Data-driven graphics were themselves driven by a close analysis of the way people use *Illustrator* in a modern Web-aware workflow, although print designers can benefit, too.

Golding refers to the expansive set of new distortion tools, of which conventional envelopes are just one component. We ribbed him about the very long time Adobe has taken to put proper envelopes within *Illustrator* when competitors like Macromedia *FreeHand* have sported them for so long. Golding's answer is slick: "When we implement something, we like to think we do it better than – and differently from – the crowd. We put the Adobe touch on it." He goes on to cite *Illustrator 9*'s much-belated introduction of vector transparency support as an example. Users had to wait years for this feature, but it was very good when it finally arrived. So maybe there's still hope for multipage documents next time around, then?

Customer wishlists

User feedback isn't just the result of polling users on those on-site team visits mentioned earlier. Another important source of serious professional opinion is the pair of *Illustrator* user-to-user forums at Adobe's Website: one each for Windows and Mac users. These forums enable anyone to ask for help, share advice and make suggestions for what they'd like to see in future versions of the software. Although the forums aren't officially moderated in the strictest sense, Adobe staff do monitor the discussions and are often active participants. Try them out at **[w]** www.adobe.com/support/forums.

Another way *Illustrator* users have made their opinions known since the last version, is by firing off emails to **[e]** illustrator wishlist@adobe.com. According to Golding, if enough people say 'wouldn't it be great if...' then the idea is added to the list that's passed on to the developers. Whether using the forums or the wishlist email address, there's nothing to stop you encouraging colleagues to start a harassment-free campaign to get Adobe to take a new idea on-board. Golding is keen to dispel the concept of a lone user voice battling against the mighty but somewhat deaf machine of big-league software development. "Nothing could be further from the truth," he says, apologising that it's not possible to credit or even respond to everyone who contributes to the wishlists, but insisting that every submission is read and considered.

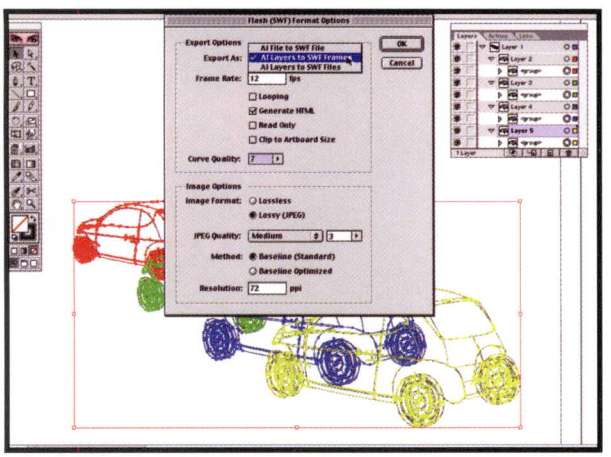
Coming up with a Mac OS X edition of *Illustrator* was a case in point, and the whole platform upgrade issue has been one by which Adobe has fended off a good deal of user pressure. As one of the most important Mac software developers in the world, Adobe's apparent reluctance to churn out OS X-native versions of its leading products immediately has not only given room for untethered conjecture as to why this is, but has arguably delayed the uptake of the operating system by other developers and generally held it back.

Golding is philosophical about the issue: "Mac users – and I'm one of them – are more outspoken than others, and many of them have been asking about OS X. The response has been different in the prepress industry, where the inclination is not to move to OS X until all other software has been upgraded, too. Once everything is available Carbonised at the same time, these users will upgrade the whole lot in one go." ca

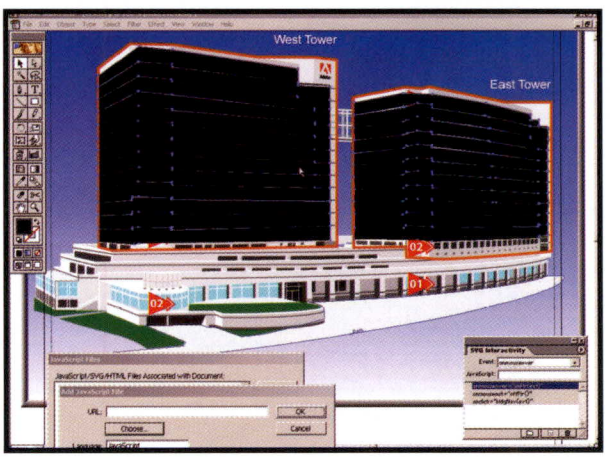
Words supplied by Alistair Dabbs, **[e]** ali@dabbsnet.com.

SVG vs SWF

Support for both the proprietary *Flash* and open SVG standards for dynamic Web media have been enhanced in *Illustrator 10*, as a consequence of the push for more Web design software integration. But while the *Flash* improvements were fairly mandatory (movie looping, single definition of symbols in frame-based animations), the program has become a more serious springboard to core SVG design. As well as being able to open SVG files created by other people, even using other software, *Illustrator* now enables you to apply live effects such as Gaussian blurs and dropshadows within the SVG format. You can also link content to variable data, as well as trigger JavaScript events as before. With these developments, Adobe hopes to make SVG a realistic alternative to *Flash*.



Flash support has been improved in small but obvious ways, providing a couple of additional export options and better object efficiency within smaller files.



Anyone who has access to CGI libraries or knows something of JavaScript can now get seriously into SVG, the media graphics standard supported by Adobe.

Illustration: Bill Surname. **Telephone:** 01wherever

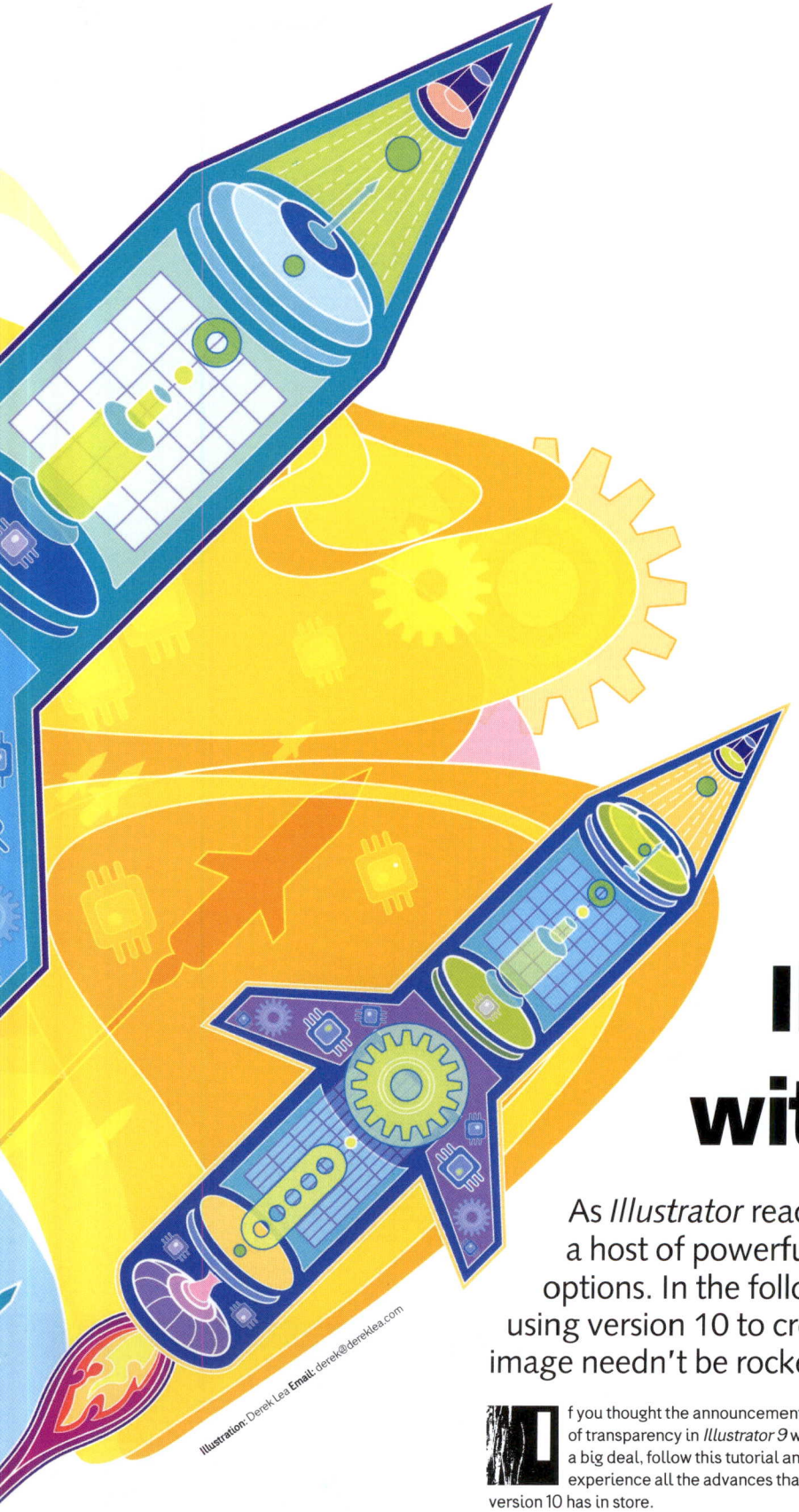


Illustration: Derek Lea Email: derek@dereklea.com

Illustrating with AI10

As *Illustrator* reaches double digits, it brings a host of powerful new features and creative options. In the following tutorial, we prove that using version 10 to create an original and dynamic image needn't be rocket science…

If you thought the announcement of transparency in *Illustrator 9* was a big deal, follow this tutorial and experience all the advances that version 10 has in store.

For a start, there are new live distortion tools – you can twist, bend, distort and warp your artwork with live enveloping tools, and you can edit, adjust or remove the envelopes and your affected shapes will return to normal. Version 10 also comes with new Liquify tools that *Photoshop 6* users will be familiar with, and a Magic Wand tool.

A new Symbolism toolset enables you to create many similar elements with ease – there's a whole suite of tools for editing and manipulating the new symbol instances, treating symbols within a set much like raster paint particles, and using graphics tablets. This update also features a new Flare tool, a Line tool, an Arc tool, and a toolset for creating quick rectangular and polar grids. But the icing on the cake is perhaps compound shape enhancements; the previous Pathfinder functions have been revised and optimised for flexibility, and your new compound shapes can be pasted directly into *Photoshop* and edited there.

We'll be trying all these features and more, so start creating our opening image and discover the latest additions to Adobe's premiere vector graphics tool on the way.

Tutorial files

The files you need to create our opening image are on the CD supplied with issue 63 of *Computer Arts*, in Tutorial\AI10\Illustrating. Artwork and expertise by Derek Lea. [e] derek@dereklea.com, [w] www.dereklea.com.

Part 1: The pencil rocket

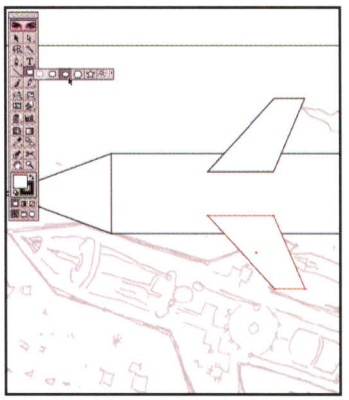
We'll start by building the main visual element of the image. Here we're using the new compound shape options, together with some new and old tools...

Compound shapes

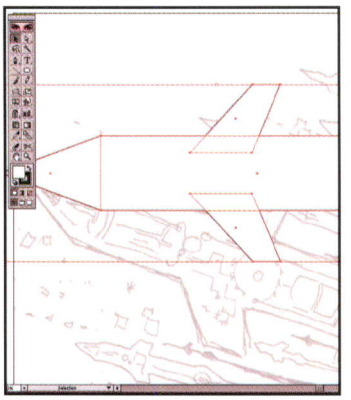
Illustrator 10 uses the same approach to compound shapes as *Photoshop 6*, so for those who have always used *Illustrator* paths in *Photoshop*, life just got a whole lot easier. Not only can you paste your compound shapes into *Photoshop*, but you can continue to modify them once they're there.

Importing sketches

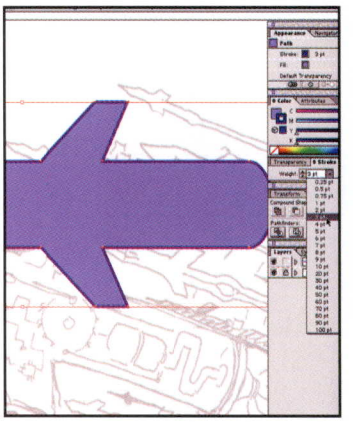
By using File>Place in *Illustrator* you can import a variety of image formats, which is particularly helpful when you have a sketch you'd like to use as a template. The transparency functions introduced in version 9 made this less intrusive by enabling you to fade the image. Generally, you'll only want to have the image visible when you're placing objects or tracing shapes; the rest of the time your artboard will be less cluttered if you keep the picture layer's visibility switched off.



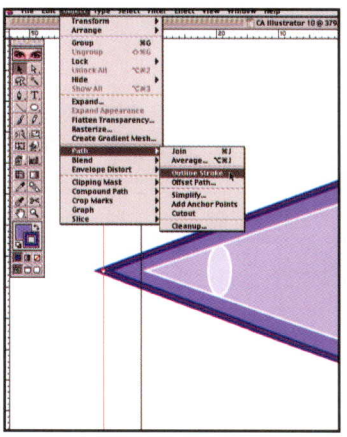
1 In a new file, import the file rough.pct from the *CA* coverdisc. Reduce the opacity in the Transparency palette and lock the layer it's on so you don't accidentally move it. On a new layer, use the Rectangle, Elipse, and Pen tools to create a series of shapes for the main rocket.



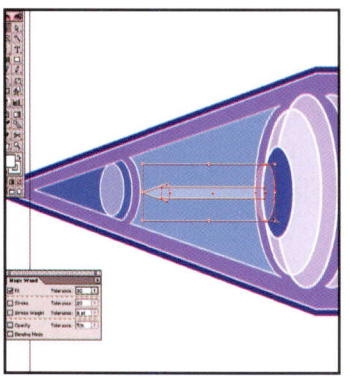
2 Select the shapes and click the Add To Shape Area button in the Pathfinder's new compound shapes options. Although combined, the shapes can still be edited individually. We decided to move the wing shapes further to the right using the Direct Selection tool.



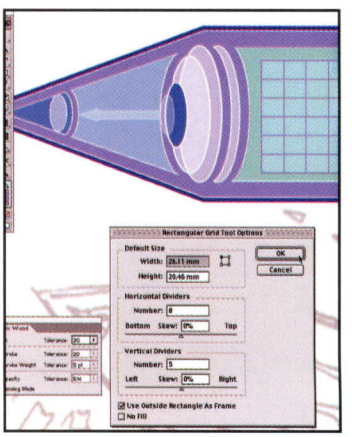
3 Since these shapes don't require further editing, click Expand in the Pathfinder. This mirrors older versions of *Illustrator*, creating a final non-editable shape. Go ahead and adjust the stroke and fill colours, as well as the thickness of the stroke.



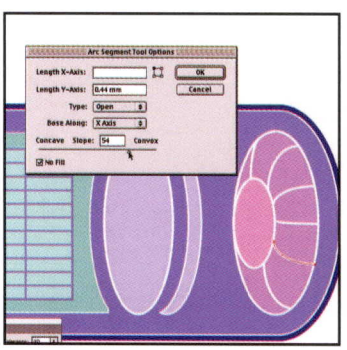
4 Duplicate the rocket layer, select the object, and convert the stroke to a shape using Object>Path>Outline Stroke. Now apply a white stroke to the shape to give the rocket a 'stroke around a stroke' effect.



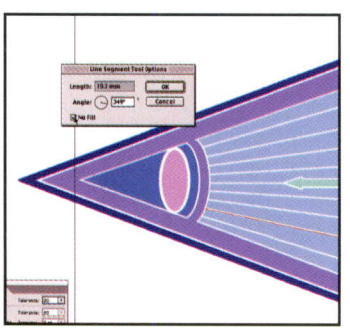
5 On a new layer, begin building the interior of the rocket using the Elipse, Rectangle, Pen and Compound Shape tools. Have some fun experimenting with the Compound Shape options, and with fill colours and strokes. Try editing stroke and fill opacities independent of each other using the Appearance and Transparency palettes.



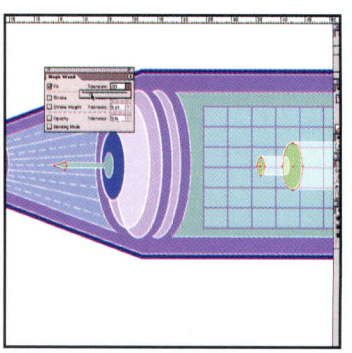
6 Using the new Rectangular Grid tool (in the Line tool pull-out bar), draw some grids. You can access the Grid Tool options by either double-clicking the icon in the toolbar or clicking the artboard with the tool.



7 Select the Arc tool from the Line tool pull-out bar. Draw a series of arcs near the end of the rocket by clicking and dragging. Click on the artboard with the tool, or double-click the tool icon to access various options for creating arcs.



8 Draw a series of lines by clicking and dragging with the new Line Segment tool. As with the Grid and Arc tools, you can access the Tool options by clicking the artboard or double-clicking the tool icon in the toolbar. In the Stroke palette, convert some strokes to dashed lines.



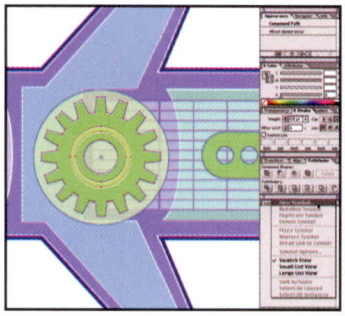
9 Continue building internal components using the previous methods. Try using the new Magic Wand tool for selecting objects which share similar attributes, and adjust the strokes, fills, and transparency of several objects at a time.

Part 2: Gears, microchips and combustion

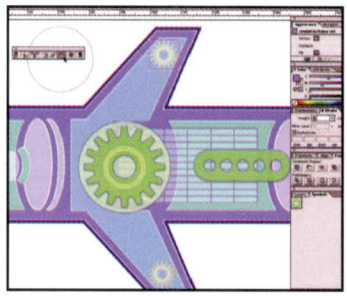
Next we delve into symbol creation and manipulation, adding internal components to the pencil rocket and making the flames flicker using the new Liquify tools...

Symbolism tools

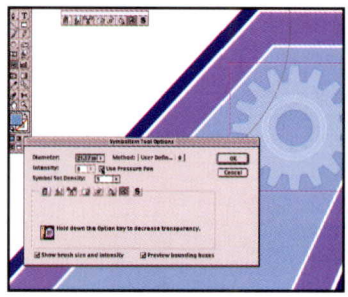
Working with the new Symbolism tools is more like raster painting, and it takes a little getting used to. However, once you've had a go you'll realise that this method is more intuitive – editing symbol instances feels more like painting thanks to adjustable brush sizes, cumulative effects, and clicking and dragging. Pressure-sensitivity is also supported, adding extra creativity for those working with tablets.



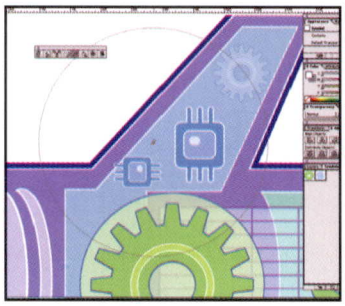
1 Create a gear using the Pen and Elipse tools, and the compound shape options. Next, create a symbol from this shape by choosing 'New Symbol' in the Symbols palette. To add an instance of the symbol, drag and drop its icon onto the artboard.



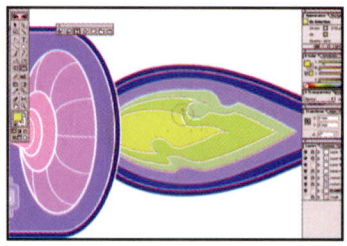
2 After adding a couple of instances, use the Symbol Sizer (hold down the Option key on the Mac or Alt on the PC) to reduce their sizes. It's as simple as clicking and dragging on the selected instance. Specify a fill colour and use the Symbol Stainer to tint the colour of the instance.



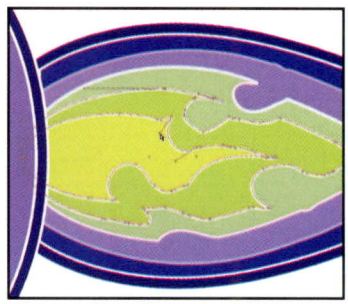
3 The transparency of the instances was reduced by painting over them with the Symbol Screener. You can access the Symbolism tool options by double-clicking a tool's icon in the toolbar. There you can set the density, intensity or brush size, and enable pressure-sensitivity.



4 Create a microchip shape using rounded rectangles and the compound shapes options, then save it as a new symbol. Drag in some new instances and use the Symbol Sizer, Spinner and Stainer to adjust them.



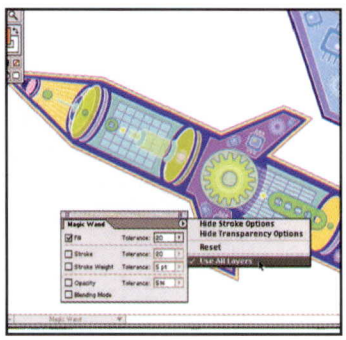
5 On a layer underneath the main rocket, draw a series of shapes using the Pen tool – create teardrop shapes that resemble candle flames. Use the new Liquify tools, Warp, Twirl, Pucker and Bloat, to reshape the teardrop shapes. Again, tool options are accessed by double-clicking the tool's icon. Using the new tools is as simple as clicking and dragging.



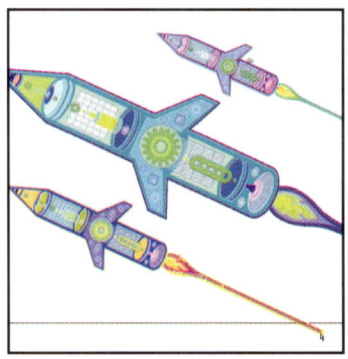
6 The Liquify tools actually add points with Bézier handles to your paths to achieve their effects. Use the Direct Selection tool on some of the new points to adjust the Bézier handles and smooth out a few of the curves.

Part 3: Duplicating the rockets

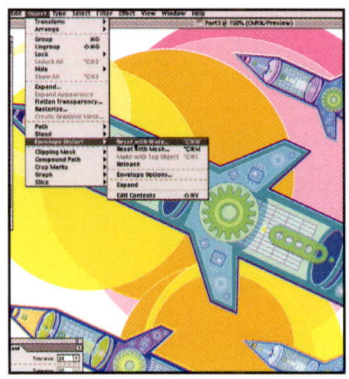
We'll use the new Magic Wand tool to make variations of similar objects, and apply the new Warp and Mesh envelope distortions in the background to achieve fully editable results...



1 Start by flattening the image, then group all the objects and rotate the rocket into place. Duplicate the layer and reduce the size of the rocket. Use the Magic Wand to select groups of objects and vary their fill colours, strokes and opacity. Try experimenting with the Use All Layers option.



2 Make another rocket and adjust fills, strokes and opacities. Go ahead and adjust the main rocket as well if you like. Next, use the Direct Selection tool to select the endpoints of the flame trails, and stretch them to the edge of the artboard.

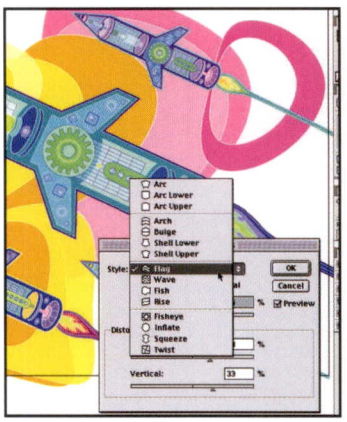


3 On a new layer underneath, create a series of shapes using the Elipse tool and compound shapes options. Select the shapes and apply a new envelope distortion using Object>Envelope Distort>Reset With Warp.

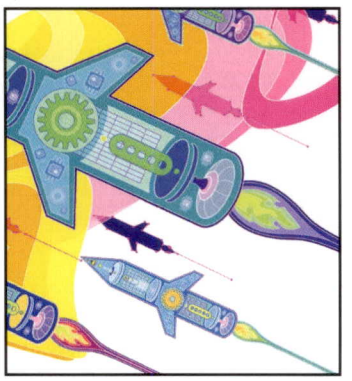
Part 3: Duplicating the rockets, continued...

Envelope distortion

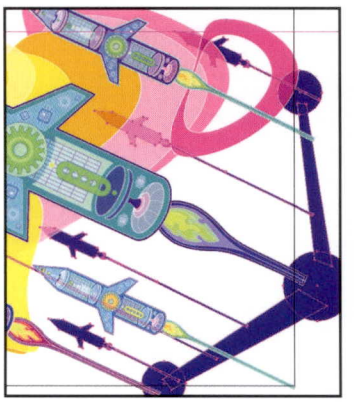
The great thing about the new envelope distortion options, is the envelopes perform their operations without affecting the actual vectors which construct the shapes. So, if you're not happy with the result later on, even after you have closed and re-opened the file, you can alter or delete the effect and your underlying shapes will revert to their original state. Once you get the hang of envelopes, you'll never use Filter>Distort>Twirl again.



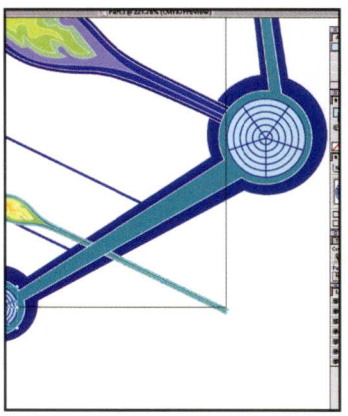
4 In the dialog box, select the Flag option from the large list of presets. Employ the appropriate sliders and enable the Preview option. The Preview option enables you to see what you're doing, and reacts quickly to any slider adjustments.



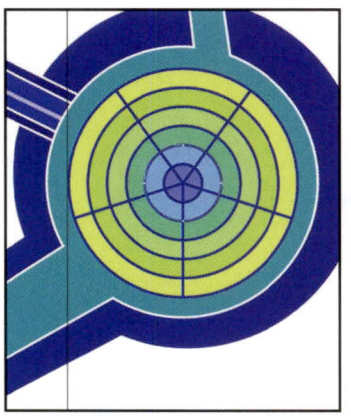
5 Use the Direct Selection tool to select a teardrop flame shape and the outer shape of the rocket. Copy and paste them onto a new layer, then combine them using the compound shapes options. Option/Alt-drag to make copies on the same layer, then change the blending mode of the layer to Overlay in the Transparency palette.



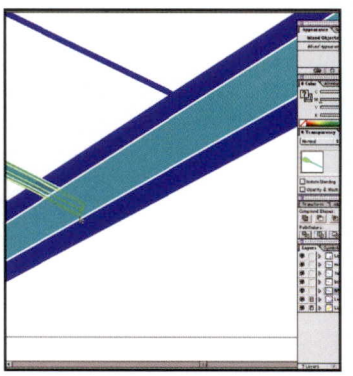
6 Create some additional shapes using the Elipse and Pen tool. Next, generate some rectangles and rotate these into place so they are in position to join the rockets to the new shapes. Select all the objects on this layer and combine them using the compound shapes tools.



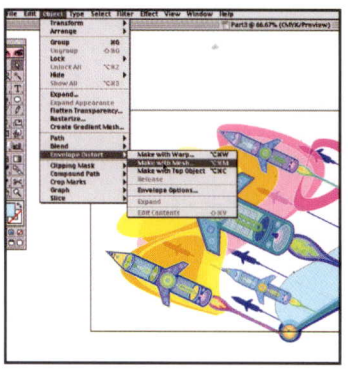
7 Create a new layer above all of the others. Use the Elipse and Pen tools to draw shapes similar to those you just created but a little smaller, then combine them. Use the Polar Grid tool to draw some grids on top of your new circles.



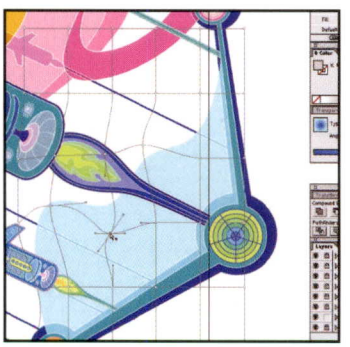
8 With the Direct Selection tool, select different sections of the polar grids and adjust their fill colours independently. Try to mimic the colour scheme to the nearest rocket flame, or perhaps use colours from the background.



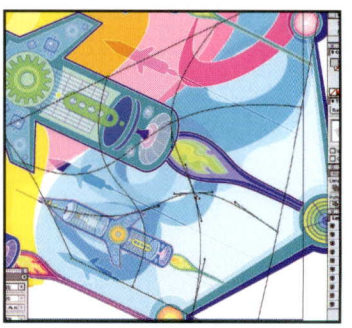
9 Now, again using the Direct Selection tool, select the endpoints of any rocket flame trails that extend beyond your new shape, and tuck them in under it. Yes, a few steps ago we pulled the flame trails out to the edge of the artboard, but part of the beauty of *Illustrator* is the ability to change your mind along the way.



10 Create a new layer underneath the present one and draw a wiggly blue shape on it. With the new shape selected, choose Object>Envelope Distort>Make With Mesh.



11 This has created a mesh that you can edit the points of using the Direct Selection tool. Go ahead and distort the shape – try selecting groups of points and pulling them in various directions, or just moving individual points slightly here and there.



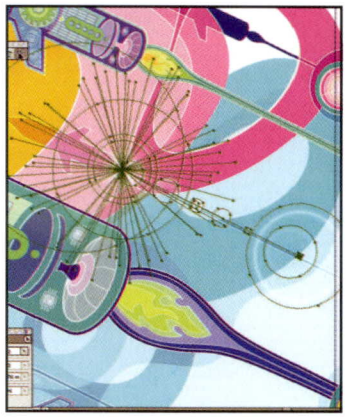
12 Now create a new layer, and on it draw another series of shapes. This time try a Warp envelope distortion using the Twirl option. Again, make sure the Preview function is enabled. Edit the points of this new mesh with the Direct Selection tool, just as you did previously.

Part 4: The final touches

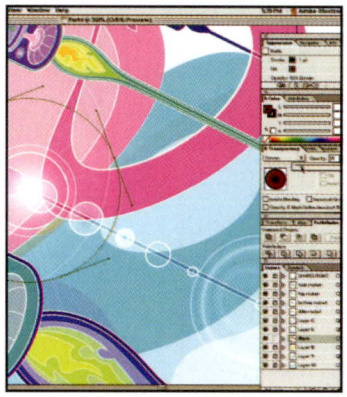
Time to try out the new Flare tool and Symbol Sprayer. Then we'll add some interesting shapes to the background using another new envelope function...

Option/Alt

Holding down Option (Mac) or Alt (PC) while using a Symbolism tool reverses the behaviour of the tool. For instance, holding down Option/Alt while using the Scruncher will actually move instances within a set further apart; with the Sizer it will shrink the instance. But the most impressive example is with the Sprayer – here, Option/Alt will make the Sprayer remove symbol instances from a set instead of adding them.

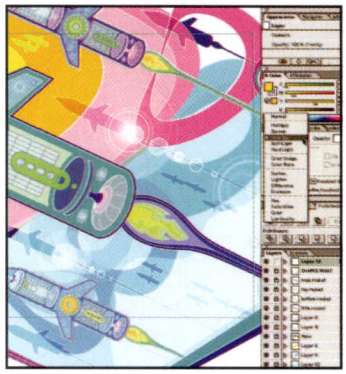


1 On a new layer, select the Flare tool from the Rectangle tool pull-out bar, then click and drag. This sets the size of the flare's centre and the number of rays. Clicking a second time will determine the length of the flare and add rings to it.

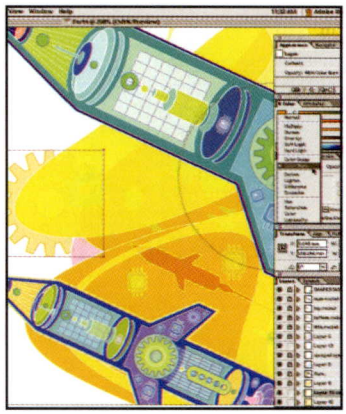


2 Use the Direct Selection tool to select and edit different parts of the flare. Double-clicking the Flare tool in the toolbar will open the settings for Centre, Ring, Halo and Ray. You can also convert the flare to individual editable elements by choosing Object>Expand.

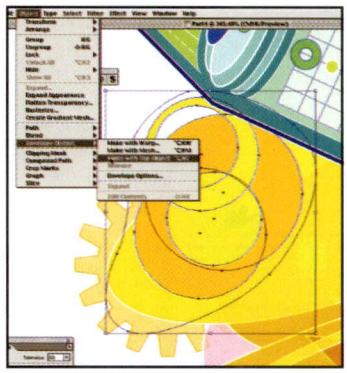
3 Option/Alt-drag one of the outer shapes of a rocket to make a duplicate. Scale it down so that it's smaller than all the other rockets so far. Make a new symbol of the shape by dragging it into the Symbol palette, then delete the original shape from the artboard.



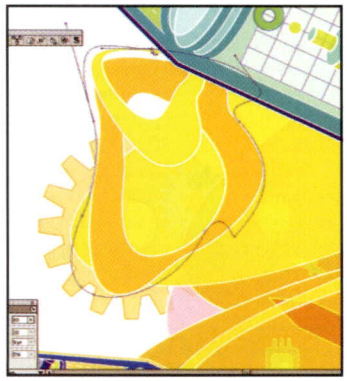
4 With the new symbol selected, create a new layer and use the Symbol Sprayer to begin spraying out a set of symbol instances. Move instances within the set using the Scruncher and Shifter. Next, resize a few of the instances using the Sizer, then change the layer blending mode to Overlay and reduce the opacity.



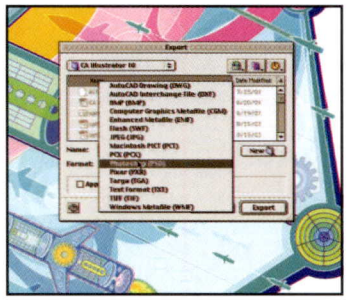
5 Have some fun playing around with the symbols and their instances. Add some new instances on new layers, and try various blending modes, tints and opacities. Move the layers up and down in the hierarchy to affect different underlying objects.



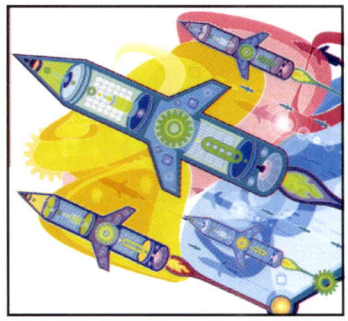
6 On a new layer, under the main rockets, create a group of shapes. Use the Sphere tool and the compound shapes tools. Next, draw a kidney shape using the Pen tool. Selecting the group and the kidney shape, use Object>Envelope Distort>Make with Top Object to distort the group, using the kidney shape as an envelope.



7 To edit the shape further, use the Direct Selection tool to access points and Bézier handles on the envelope. Rotate, resize, and reposition the new distorted shape.



8 After adding a few more shape instances, add some dotted lines using the Line tool, enabling the Dash function in the Stroke palette. Now you can export the file to *Photoshop* as a flattened or layered file. We chose to export it as a flat file, since we weren't planning on making adjustments to individual layers.



9 Open your image file in *Photoshop*. You'll need to check the ink density and make any necessary colour adjustments to the image. We tweaked the overall colour using Levels and Selective Colour. Finally, it was saved as a TIFF file for importing into a layout program. ca

Trident

Trident has embraced *Illustrator*, and demonstrates that *"not all packaging must go through a high-end process..."*

Creating packaging for the consumer goods industry is precise and complex, and ensuring consistency from screen to print in the field of reprographics has often been the domain of dedicated high-end software. The peace of mind that such specialised systems afford comes at a price, but for leading packaging art provider, Trident, a company which already uses *Photoshop* and *Illustrator* for most of its day-to-day work, cost-effective changes are already being glimpsed on the horizon.

"*Illustrator* is growing in its acceptance in the packaging industry", says Jon Stevens, Technical Director at Trident. "Go back a few years and most companies like us were taking poorly created artwork from the major packages and recreating them in high-end systems like *Barco* or *ArtPro*. Now, particularly with the release of *Illustrator 9* and PDF 1.4 in *Acrobat 5*, nearly all the shortcomings of PostScript have been addressed. *Illustrator 9* now works in the PDF format, which enables features such as transparency of colours and soft masking."

Since 1993, Trident has managed brands such as Body Shop, Philips, Cussons and Heinz, and its increasing use of *Illustrator* is proof that the app is maturing in unexpected ways. According to Jon, Adobe has gradually added almost all the tools necessary to address the areas where high-end solutions step in.

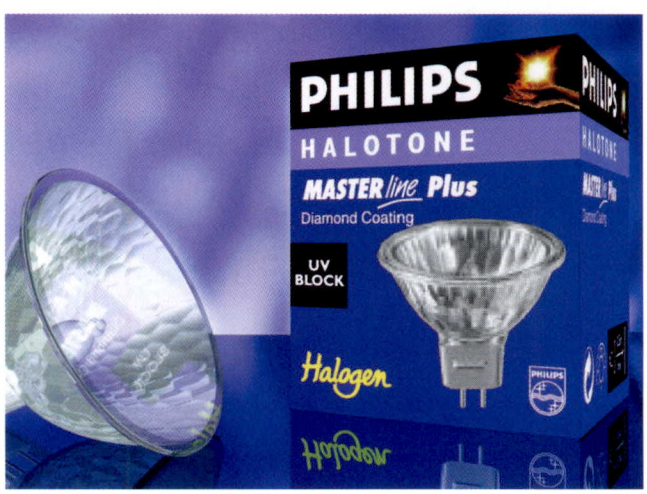
To facilitate the move to *Illustrator*, and to keep more of its workflow on the Mac, Trident uses two main plug-ins. The first, *boostX*, enables its designers to mix multiple spot colours and assign them to one colour; the second, *checkX*, checks artworks against a predetermined set of rules.

The most challenging area for Trident's use of *Illustrator* is describing complex effects that can be output by printers. For Jon, a packaging-specific version would be the ideal solution, which isn't as utopian as it sounds. "The high-end people currently charge over £20,000 per licence for a solution that is almost delivered in *Illustrator*," he explains. "If Adobe could offer spot colour trapping, an ink-based preview, TIFF ink mapping and selective overprint then we'd hardly have a need for high-end products."

Trident has recently beta-tested *Illustrator 10*, and Jon sees the right kind of evolution. "Some of the most exciting things I've seen were produced using *Illustrator* and Applescript," he says. Jon's prediction is that all work will eventually be originated and repro'd on the Mac with Adobe's products. "I think that ultimately, *Illustrator* will provide everything that our industry needs... it's just a question of when." ca

You can find out more about Trident online by going to [w] www.sonoco-trident.co.uk. Alternatively, email [e] jon.stevens@sonoco.com or call [t] 01482 887 212. To contact plug-in developer Frank Vyncke, email [e] frank.vyncke@yin4yang.com.

As you can see from the selection on this spread, Trident's packaging illustration work involves clients who are literally household names. The company's service to its fast-moving consumer goods-industry client base incorporates everything from liaising with designers, through to attending print runs on presses, and all the bits in between. This includes the creation of digital visualisations of products, such as the ones pictured here.



Illustrator 10 tips

We've put together 30 essential tips for getting the best from Adobe's leading vector graphics application...

1. Simple animations

You don't have to resort to *ImageReady* when creating Web animations. You can export a multi-layer *Illustrator* document as a *Flash* animation, each layer becoming an animation frame.

2. Animations from blends

For quick animation effects, try creating a blend, selecting the blend's sub-layer, then Release to Layers from the Layers palette menu. Now you can export your *Flash* animation – make sure that you choose the Export Layers to Frames option.

3. Blend effects

You can create sophisticated morphing and tweening effects by using blends creatively. You can even blend text into other text or shapes once you've converted your type to outlines.

4. Compact animations

Illustrator 10's new symbols enable you to create far more compact animation files. The symbol is only saved once, but reused in multiple frames when the animation plays back – as opposed to saving multiple copies of the graphic.

5. Layers and objects

Illustrator's Layers palette also doubles as a highly intuitive object manager. Expand the layers to view the objects on each, then click the button to the right of the object name to select it for editing.

6. Save time with symbols

Symbols are a great way to standardise graphics – and to change them globally later on. When you alter a symbol, all instances in your document are updated. It's easy to modify symbols by breaking an instance's link, modifying it, then using it to update the original symbol.

7. Symbol libraries

AI10 is designed to be an effective work-grouping tool, not just a standalone graphics app. The ability to export symbol libraries and share them with others is just one example of the way you can standardise graphics among teams.

8. Symbol properties

Use the Symbol Sprayer tool to 'paint' instances of your symbols. This tool is only one of a number on the same flyout – open it, then with the mouse button still pressed down, move the pointer over the arrow at the far right and release to tear off the palette. This contains tools for manipulating your painted symbols – a symbol 'set'.

9. Pressure-sensitive changes

All of the symbol manipulation tools can be made pressure-sensitive, enabling you to subtly vary the rotation, scrunching, tinting and transparency effects you apply as you drag the stylus.

10. Inverting symbol tool behaviour

To invert the current symbol tool's behaviour, just hold down the Option/Alt key as you drag. Use this to reduce symbol size with the Sizer tool, for example (which otherwise simply makes your symbols ever larger as you drag).

11. Web page design

Do you think of *Illustrator* simply as a tool for creating Web graphics to be assembled into pages by another program? Well in reality, *Illustrator* is an ideal tool for designing complete pages, especially given its integration with *GoLive*.

12. Object-based slicing

You can slice your *Illustrator* images manually, choosing different optimisation settings for each slice. Better still, though, *Illustrator 10* offers object-based slicing. This means the slices resize automatically as you edit/resize the component objects. Don't use the Slice tool on the toolbar – use the Object>Slice>Make menu option.

13. Slice formats

Experienced slicers will already know which file format – JPEG or GIF – to use for their slices. Note, though, that you can also save slices in SWF or SVG format. You can also save text objects as HTML slices via Object> Slice>Slice Options.

14. Hide slice outlines

Are those slice outlines just too distracting? You can hide them via the View menu and Hide Slices. Note that you can also lock slices from the same menu.

15. Preview text aliasing

Pixel preview was introduced with *Illustrator 9*, but it's such a great idea that it's worth highlighting again. Switch on Pixel Preview from the View menu, and you'll get to see how your graphics will anti-alias and – crucially – how fine type will be rendered.

16. Overlapping slices

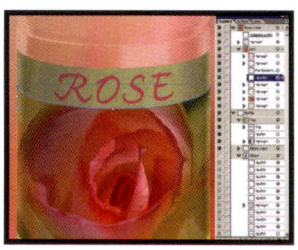
Don't worry about overlapping slices. You can export your document as CSS layers via the Save For Web dialog's Layers tab – these CSS layers are built from your document's top-level layers.

17. Warp effects

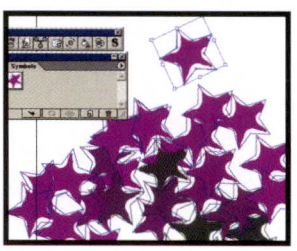
You can try out *Illustrator 10*'s 15 different Warp effects via the Effects menu. They're all configurable via sliders. Note, though, that you can also save Warp effects either as styles in their own right or as part of other styles.

18. Filters and Effects

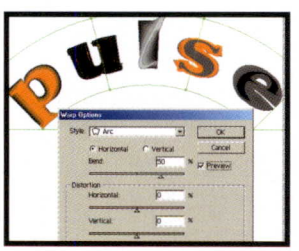
What's the difference between Filters and Effects? After all, both menus appear to offer the same



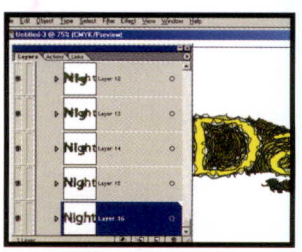
'Layers palette' is hardly a big enough name for what's also a sophisticated and highly intuitive object manager. To change the stacking order, just drag objects up and down the list.



Illustrator 10's new symbols can be redefined globally, but also painted as symbol sets which can be selectively defined, rotated and displaced. Scatter brushes may offer you similar control.



Illustrator 10's new preset warps offer some useful off-the-peg warping effects. But you get much more control by using another path as an envelope or with the Warp Mesh.



Illustrator's actually a rather good *Flash* animation package. Simply create a blend between two shapes (the words 'night' and 'day'), Release to Layers, then export the layers as frames in a *Flash* animation.

options. Effects, though, are reversible, and included as part of an object's properties – see the Appearance palette to browse and modify these effects. They're also saved as part of an object style.

19. Paths as envelopes

The Warp effects enable you to distort text and other objects in a variety of controllable ways, but envelopes let you go even further, providing node-by-node editing of the outline shape. Position one shape over another, select both, and then choose Envelope Distort>Make with Top Object from the Object menu.

20. More warping

There are two more ways to warp objects in *AI10*. You can use the Mesh Distort option (Object>Envelope Distort), or you can use the new *Photoshop*-style Liquify options, available from the Warp tool flyout.

21. Charts

How often do you have to translate an author's creaky *Excel* chart into a professional illustration? Well let *Illustrator* do the work for you. Its Chart tool works alongside built-in data sheets to generate them automatically.

22. Tool properties

Many of *Illustrator*'s tools – including the new shape drawing tools in version 10 – have default properties which you access simply by double-clicking on them. Double-click on the Rectangular Grid tool, for example, to define the number of horizontal and vertical grid divisions created.

23. Magic Wand

A Magic Wand? In a vector drawing application? You'll find it on the tools palette, and it works by selecting objects with the same fill/stroke colour or transparency as the one you've clicked on. Note that there's a bitmap-style tolerance setting, and you can specify more than one property.

24. Save selections

Once you have selected multiple objects using the Magic Wand tool (or manually, by Shift-clicking) you can save the selection and reuse it later. It's a bit like grouping, but retains the individual editability of each object. Handy.

25. Flare effect

You thought the lens flare effects in *Photoshop* were smart? *Illustrator 10*'s are not only much more controllable, but they can be re-edited, too. But where is that Flare tool? You'll find it hidden away right on the very end of the shapes flyout.

26. PDF compatibility

If PDF compatibility isn't an issue, you can now create much smaller files and speed up opening and saving operations by deselecting this box in the Save options dialog.

27. Metadata

You may or may not be aware that you can store image information – keywords, captions, author and the like – within *Photoshop* files. You can now do the same in *Illustrator 10*, via the File>Document Metadata option. Metadata can be used during asset management and search operations.

28. Brushing up

Illustrator makes it almost ridiculously easy to create custom brushes. Create your brush shape as usual, then simply drag it on to the Brushes palette and, when prompted, choose to save it as a Scatter, Art or Pattern brush.

29. Brush types

Scatter brushes do what they say, scattering copies of your brush shape along the path you draw. Art brushes extend a single instance of the shape along the path, and Pattern brushes repeat it along the path length, with special brush definitions for corner and end points.

30. Easy fills

Custom fills are just as easy to create. Again, you just click on a shape and drag it, this time on to the Swatches palette. To apply your fill, drag it from the palette on to any object in your document. ca

computer arts LIVE/01
10/11/12 OCTOBER/BUSINESS DESIGN CENTRE/LONDON

Adobe at Computer Arts LIVE/01

Come to the UK's premiere event for digital artists, and see *Illustrator 10* as it is unveiled to the public...

As one of the main sponsors of *Computer Arts LIVE/01*, Adobe will be making a number of key announcements at the show. *Illustrator 10* will be just one of them, and at the event you'll be able to pick up tips on the application, as well as the whole range of Adobe products. Here's what you need to keep an eye out for at the show:

Wed 10 October, 10:15am Keynote address by Mike Hopwood

Mike Hopwood is Adobe's Senior Director for Product Management in Web design, and his keynote address will open the show and introduce *AI10*. He'll be focusing on how the application's capacity for creating graphics for multiple formats fits in with the company's concept of Network Publishing.

Wed 10 October, 16:15pm Adobe presents...

The company will be inviting one of its print design clients to the show to discuss the use of PDF in the modern creative workflows.

Thurs 11 October, 9:30am Adobe seminar

Adobe takes the stage in our 450-seat auditorium, to show you how applications like *InDesign* fit in with the Network Publishing concept. Network Publishing is Adobe's vision for media systems, under which digital creatives can publish their content once to a variety of formats including print, the Web, handhelds and so on.

Friday 12 October, 9:30am Adobe seminar

Adobe's representatives take the stage once again. And once again the theme is Network Publishing, but this time the focus will be on applications like *Premiere*, *After Effects* and *LiveMotion*.

The Adobe Café

Why not drop by Adobe's space on the Exhibition floor for a cup of mocha and a biscuit? More importantly, creatives and product demonstrators will be on hand to show you how to create an array of digital projects using a range of Adobe applications, including *Photoshop*, *LiveMotion*, *GoLive*, *After Effects*, *InDesign* and of course, *Illustrator*.

ESSENTIAL DETAILS

Join us at The Business Design Centre, Islington, London on:

10/11/12 OCTOBER

Tickets start at £8 per day. Order online or call the hotline:

0870 120 0720

Keep up to date on the show's attractions at:

www.computerartslive.co.uk

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Illustrator plug-ins

Twelve plug-ins to enhance *Illustrator*'s functionality or creative toolset...

With *Illustrator 10* soon to be released, plug-in manufacturers could end up being elated and deflated at the same time. The new scripting capabilities of version 10 look set to make it even more flexible for third-party programmers, and the new release of a product gives companies a chance to step back and think of even more ingenious extensions. On the other hand, with each new release Adobe is adding more and more features, making some third-party tools redundant.

The opinion at *Computer Arts* is that all plug-in developers will be as excited about the release of *AI10* as we are, and will seize the opportunity to extend its capabilities. In the meantime, we've gathered together 12 of the best *Illustrator* plug-ins, reviewed by *CA* in the last year. We can't guarantee that all of them will work with the final release of *Illustrator 10*, but if they don't, developers are sure to bounce back with something even more exciting...

Product	Platform	Price	Company	Contact	Issue	Verdict
3D-Tiger 1.1	PC/Mac	$199	Elysium	www.hotdoor.com	59	
3D-Tiger is a plug-in for *Illustrator* that enables you to import and manipulate 3D models. This version supports DXF, DWG, OBJ, VRML, IGES, STL and VXL formats. Easy to use and providing the ability to export your models as paths or a rasterised mesh, this is one of the most useful vector plug-ins in a long time.						
Hot Door Perspective	PC/Mac	$159	Hot Door	www.hotdoor.com	59	
In order to bring some perspective functionality to *Illustrator* (à la *FreeHand*), Hot Door released this intuitive plug-in. Although not as polished as *FreeHand*'s grid system, the plug-in offers complete control over perspective grids via an easy-to-navigate palette.						
SymmetryWorks	PC/Mac	$125	Artlandia	www.artlandia.com	59	
For those needing to produce symmetrical patterns in *Illustrator* without the rigmarole of duplicating and transforming, *SymmetryWorks* will be a godsend. This plug-in is certainly aimed at a niche market, but is nevertheless extremely easy to use.						
FILTERiT 4	PC/Mac	$129	CValley	www.cvalley.com	59	
All in all, this is probably the most comprehensive and diverse set of *Illustrator* plug-ins available, containing 13 live effects. Although some of the appeal will be taken away by the inclusion of *Illustrator 10*'s new live distort tools, *FILTERiT* is a great-value package.						
Sapphire Pack 4	PC/Mac	£35	Sapphire Innovations	www.sapphire-innovations.com	59	
Sapphire's back, this time with a handful of neat plug-ins and tools for *Illustrator* users. Among the best in the pack are the Rows and Columns tools and the Drag tool. At £3.50 per tool, this *Sapphire Pack 4* is indisputably a bargain.						
Vector Studio	PC/Mac	$129	Virtual Mirror	www.virtualmirror.com	CAS15	
Made up of six *Illustrator* plug-ins, *Vector Studio* from Virtual Mirror is a superb and well-presented package. Envelope meshes (a touch redundant now, considering *Illustrator 10*'s new envelope features), Morph brushes and Gradient textures are just part of a superb bundle.						
KPT Vector Effects 1.5	PC/Mac	£129	CU	www.computersunlimited.co.uk	CAS15	
Aiming to put a different slant on your vector creations, *KPT Vector Effects* enables you to extrude, transform and tweak colours in ways that would be extremely time-consuming in *Illustrator* alone. We await the next release from new owners, Corel.						
3D Words	PC/Mac	$99	Vertigo	www.vertigo3d.com	CAS15	
3D Words is a simple plug-in enabling you to run 3D text along a path. Simply extrude your text and place it on a path within an intuitive interface. It's a shame that shaded areas are made up by objects rather than gradients, but this is nevertheless an effective way of creating 3D vector text effects.						
CADtools 2.1	PC/Mac	$199	Hot Door	www.hotdoor.com	CAS15	
CADtools aims to take the pain out of creating technical drawings in *Illustrator*. For users not wanting to shell out thousands on a CAD package, this plug-in provides a great toolset and is intuitive in its workflow. A good buy for those designers needing CAD functionality.						
3D Popart	PC/Mac	$39	Vertigo	www.vertigo3d.com	CAS15	
Not exactly a complex plug-in, or one with much substance, *3D Popart* is simply for extruding objects directly on your *Illustrator* page. As with *3D Words*, shaded areas are generated as multiple objects, making for hefty file sizes.						
boostX	PC/Mac	$149	Barco	http://dtp.barco.com	CAS15	
Rather than building on *Illustrator*'s creative tools, *boostX* provides many productivity-enhancing tools. These include the Area Select tool, a Dust Select tool for only selecting objects of a certain size, and the Crosshair dialog, bringing diagonal guides to *Illustrator*.						
checkX-omni	PC/Mac	$649	Barco	http://dtp.barco.com	CAS15	
checkX-omni is a plug-in that's intended to prevent output disasters, and is basically a preflighter for *Illustrator*. What it does, it does well, and our only real gripe is that at $649 the product is overpriced.						

New Courses at CA LIVE 2001

See the launch of the New Corps Business Scheduled Courses at this year's Computer Arts Live!

Located on Stand 212, Corps Business will be talking about the latest developments in their training, recruitment and new media studio services.

Corps Business is Adobe's largest authorised training centre in the UK providing both tailor-made and scheduled courses.

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Warning to all citizens:
top creative minds are roaming wild in the UK. Desperate for new ways to work, they will do anything to be the first to know about new Adobe products. If you know of anyone trying to push creative boundaries alone, approach them with care and direct them to the CA Live show at the Business Design Centre, London, on the 10th, 11th, 12th October. Or suggest they register at www.adobe.co.uk/alist Whatever you do, for your own safety, don't get between them and their work.

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